DAVID PARDO
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EDUCATION

2000-2004 **The University of Texas at Austin**, GPA: 4.0.
M.S. and Ph.D. in Computational and Applied Mathematics. Supervisor: L. Demkowicz.

1995-2000 **The University of Basque Country**, May 2000.
B.S. in Applied Mathematics.

EXPERIENCE

2010-Present **University of the Basque Country (UPV/EHU)**, Research Professor.
- Leading research group *MATHMODE, https://www.mathmode.science.*
- Working on deep learning, solution of parametric PDEs using deep learning, multiphysics simulations, inverse problems, geophysics, and structural health monitoring of offshore wind turbines and farms.
- Promoting collaborations with international research centers and enterprises.

2009-Present **Ikerbasque**, Research Professor.
- Promoting and improving sciences within the Basque Country.

2014-Present **Basque Center for Applied Math. (BCAM)**, Research Professor.
- Leading research line on*Mathematical Design, Modeling, and Simulation (MATHDES).*

2008-2010 **Basque Center for Applied Math. (BCAM)**, Research Professor.
- Leading research line on *Multiphysics, Inversion, and Petroleum.*
- Assisting with organization of the research center.

2006-2008 **The University of Texas at Austin**, Research Associate.
2005-2006 **University of Cantabria (Spain)**, Visiting Professor.
2004-2006 **The University of Texas at Austin**, Post Doctoral Fellow.
2000-2004 **The University of Texas at Austin**, Graduate Research Assistant.
Summer 2003 **Baker-Hughes, Baker-Atlas Division**, Internship.

PUBLICATIONS AND PRESENTATIONS

2006-2024 Over 200+ publications (150+ in ISI peer-reviewed journals).
2004-2024 Over 400+ presentations (300+ at international congresses).
2006-2024 Received Cites: 6600+ (Google Scholars); 3500+ (Scopus).
2006-2024 h-index: 36 (GS); 29 (Scopus).

HONORS

2010, 2016 J.T. Oden Visiting Fellow.
2011 Awarded by the Spanish Society of Applied Mathematics (SEMA) as:
Best Spanish Young Researcher in Applied Mathematics 2011.
2003-2004 The University of Texas Continuing Education Fellowship.
2003 US National Congress on Computational Mechanics Fellowship.
2002-2003 David Bruton Jr. Fellowship (USA).

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TEACHING (GRADUATE LEVEL)

2023, 2025	Short course on Coding Deep Neural Networks for PDEs, Chile.
2022	Short course on Coding Deep Neural Networks for PDEs, Spain.
2021	Short course on Solving Inverse and Forward Problems using Deep Learning, Spain.
2020	Short course on Deep Learning for Solving Inverse Problems using TF2.0, Spain.
2018	Short course on Finite Element Modeling at AGH University, Krakow, Poland.
2011-2017	UPV/EHU Master's Course: Mathematical Modeling and Numerical Methods in Physics and Engineering.
2015	Short course on Mathematical Modeling at University of Seville, Spain.
2014, 2017	Short course on Coding Finite Element Methods at Pontifical Catholic University of Valparaiso, Chile.
2012	Short course on Finite Element Methods at University of Valparaiso, Chile.
2010	Short courses at KAUST (January), BCAM (March), and AGH University (May).

STUDENTS SUPERVISION

Present	**Current Ph.D. students**: Nicolas Gorostidi, Jesus Gonzalez-Sieiro, Shima Baharlouei, Alejandro Duque, Xalbador Otxandorena.
2007-2022	**21 Postdoctoral fellows supervision**: Matteo Croci (2024-2025), Carlos Uriarte (2024-2025), Manuela Bastidas (2023-2022), Yerai Pena (2022-2023), Ana Fdez-Navamuel (2022-2025), Tomas Teijeiro (2022-2025), Judit Muñoz-Matute (2019-2025), Mahdi Abedi (2020-2025), Arijit Hazra (2020-2022), Ali Hashemian (2019-2024), Javier Omella (2017-2024), Julen Álvarez-Aramberri (Spring 2016; 2017-2021; 2022-2024), Magdalena Grigoroscuta (2017-2018, 2020-2025), Florian Puchhammer (2019-2021), Paulina Sepulveda (2018-2019), Mostafa Shahriari (2018-2020), Daniel Garcia (2018-2019), Vincent Darrigrand (2017-2019), Theophile Chaumont (2016-2018), Shaaban Bakr (2015-2016 and Fall 2012), Angel Rodriguez-Rozas (2015-2018), and Myung Jin Nam (2007-2008).
2014-2020	**13 Ph.D. students graduated**: Carlos Uriarte (2024), Oscar Rodriguez (2024), Felipe Caro (2023), Ana Fdez-Navamuel (2022), Jon Ander Rivera (2022), Judit Muñoz-Matute (2019), Mostafa Shahriari (2018), Daniel Garcia (2018), Vincent Darrigrand (2017), Aralar Erdozain (2016), Julen Alvarez-Aramberri (2015), Adrian Galdran (2015), Jon Kintana (2014).
2010-2020	**10 Master's students graduated**: Alejandro Duque (2024), Carlos Uriarte (2019), Jon Ander Rivera (2018), Judit Munoz (2015), Aralar Erdozain (2013), Adrian Garcia (2012), Javier Oses (2012), Adrian Galdran (2011), Jon Kintana (2010), and Diego Lasa (2010).
2016-2022	**Three visiting Ph.D. students**: Lianyun Can (10 months, 2021-2022), Ignacio Brevis (6 months, 2016), Sergio Rojas (10 months, 2016).

FUNDING (2019-2024)

2024-2028 €250,000: Spanish Ministry: PID2023-146678OB-I00: ULTRAPINNs (PI: D. Pardo, V. Nava).
2024-2028 €30,000: Collaborative UPV/EHU Projects (PI: I. Barrio; Co-PI: D. Pardo).
2024-2025 €2,354,400: Horizon Europe MSCA Doctoral Networks: IN-DEEP (PI: D. Pardo).
2024-2025 €2,000,000: Spanish Ministry: UNICO I+D 5G-6G 2022: (TSI-064100-2022-22) (PI: E. Jacob).
2024-2026 €181,152: Horizon Europe MSCA Postdoctoral Fellowship Matteo Croci: GEOLEARN (PI: D. Pardo).
2023-2024 €78,000: IKUR HPC-IA MATHinDEEP (PI: D. Pardo).
2023-2024 €40,000: IKUR HPC-IA DEEPFARMS (PI: V. Nava, D. Pardo).
2023-2024 €120,000: IKUR HPC-IA TrafoSPINN (PI: J. Aizpurua).
2022-2026 €4,000,000: BCAM "Severo Ochoa" (PI: L. Vega). D. Pardo is one of the 11 participants.
2022-2024 €64,677: Contract with GKN Automotive Zumaia (PI: D. Pardo).
2022-2025 €486,150: Excellent (A) Group MATHMODE -Basque Government (IT1456-22)- (PI: D. Pardo, I. Arostegui).
2022-2024 €169,280: Transicion Ecologica y Digital: TED2021-132783B-I00, MATHEOLO (PI: D. Pardo, V. Nava).
2022-2023 €12,000: Misiones Euskampus 2.0 (PI: T. Teijeiro, J. Alvarez-Aramberri).
2021-2024 €650,000: Artificial Intelligence for Sustainable Energy Transition (IA4TES), Misiones CDTI (PI at BCAM: V. Nava and S. Mazuelas).
2021-2022 €3,500: Misiones Euskampus 1.0 (PI: D. Pardo).
2022-2024 €90,000: H2020 Marie Curie Cofund European Energy for Future (E4F) Ref. 101034297 (PI at UPV/EHU: D. Pardo).
2021-2023 €80,500: Proof of Concept PDC2021-121093-I00, SUBEM (PI: D. Pardo).
2021-2024 €238,000: H2020 Marie Curie Fellowship for J. Muñoz-Matute (GEOPDG) (PI: D. Pardo; Co-PI: L. Demkowicz).
2021-2022 €82,000: IKUR HPC-IA on Deep Learning for PDEs (PI at BCAM: D. Pardo).
2021-2022 €46,488: Elkartek Project ExpertIA (PI at UPV/EHU: D. Pardo).
2021-2022 €48,672: Elkartek Project SIGZE (PI at UPV/EHU: D. Pardo).
2021-2022 €33,120: Collaborative UPV/EHU Projects (PI: I. Arostegui; Co-PI: D. Pardo).
2021-2022 €90,730: Math-in Technological Platform (PI: P. Quintela; Treasurer: D. Pardo).
2020-2023 €2,200: MATHDATA: an AUIP Latin-American Network (PI: D. Pardo).
2020-2021 €44,995: Contract with GKN Automotive Zumaia (PI: D. Pardo).
2020-2021 €86,710: Elkartek Project 3KIA (PI at UPV/EHU: I. Barrio).
2020-2021 €20,000: VIVIR, Fundacion Iberdrola (PI: V. Nava, D. Pardo).
2020-2023 €136,004: PID2019-108111RB-I00, DEEPINVERSE (PI: D. Pardo).
2019-2021 €180,000: PIXIL POCTEFA PROJECT - H2020 Programme- (PI at BCAM: D. Pardo).
2019-2020 €60,000: BCAM Project on Artificial Intelligence for Energy (PI: D. Pardo).
2019 €25,000: Contract with The University of Texas at Austin (PI: D. Pardo).
2019-2021 €333,856: Excellent (A+) Group MATHMODE -Basque Government- (PI: D. Pardo).
2019-2020 €49,884: Elkartek Project MATHEO (PI at UPV/EHU: D. Pardo).
2019 €31,478: Elkartek Project ArgIA (PI at UPV/EHU: D. Pardo).

FUNDING (2006-2018)

2018-2022	€765,000: RISE MATHROCKS Project -H2020 Programme- (PI: D. Pardo).
2018-2022	€4,000,000: BCAM "Severo Ochoa" (PI: L. Vega). D. Pardo is one of the 11 participants.
2018	€25,000: Contract with The University of Texas at Austin (PI: D. Pardo).
2017-2018	Contract with Repsol (Repsol Inspire Programme). Contract terms are confidential. (PI: D. Pardo).
2017-2019	€90,871: MTM2016-76329-R (PI: D. Pardo).
2016-2017	€75,000: MTM2016-81697-ERC (PI: D. Pardo).
2016-2017	€11,000: MTM2016-81745-REDT -Thematic Network- (PI: P. Quintela).
2015-2017	€580,500: RISE GEAGAM Project -H2020 Programme- (PI: D. Pardo).
2015-2017	€64,000: Contract with The University of Texas at Austin (PI: D. Pardo).
2015-2017	€650,000: ICERMAR -Basque Government- (PI: J. L. Villate).
2014-2016	€47,955: MTM2013-40824-P -Research Project- (PI: D. Pardo).
2014-2018	€4,000,000: BCAM "Severo Ochoa" (PI: L. Vega). D. Pardo is one of the 11 participants.
2014-2015	€25,880: MTM2014-52555-REDT -Thematic Network- (PI: P. Quintela).
2014-2015	Contract with Halliburton. Contract terms are confidential. (PI: D. Pardo).
2014	€40,005: Contract with enterprise Vicinay (PI: M. Lezaun).
2014	€10,000: Workshop organization (PI: D. Pardo).
2013-2014	€3,000: UPPA-UPV/EHU 13/02 Collaboration Project (PI: D. Pardo).
2013-2018	€184,799: Consolidated Group on Mathematical Modeling, Simulation, and Industrial Applications (M^2SI) (PI: D. Pardo).
2013-2016	€69,000: Ikerbasque Fellowship (PI: D. Pardo).
2013	€40,005: Contract with enterprise Vicinay (PI: M. Lezaun).
2012-2014	€61,000: Laboratory of Mathematics and Applications (UFI11/52) (PI: L. Vega).
2012-2016	$4,500,000: KAUST Center on Numerical Porous Media (PI: Y. Efendiev, V. Calo).
2012-2015	€132,000: CYTED 2011 –P711RT0278– (PI: M. Duran), (PI at UPV/EHU: D. Pardo).
2012	€22,900: Contract with enterprise Vicinay (PI: M. Lezaun).
2011-2013	€37,900: MTM2010-16511 (PI: D. Pardo).
2011	€9,000: Workshop organization + Travel Fellowship (PI: D. Pardo).
2010-2013	€78,000: Polish National Science NN519 447739 (PI: M. Paszynski).
2010	€18,000: Aquitaine-Euskadi Collaboration Program (Main Researcher: D. Pardo).
2009	€32,300: PTQ-08-03-08467 (PI: D. Pardo).
2009-2011	€220,000: MTM2008-03541 (PI: E. Zuazua).
2008-2010	€105,000: TEC2007-65214 (PI: L.E. García-Castillo).
2008	$100,000: Chevron (PI: C. Torres-Verdin, D. Pardo).
2008	$1,000,000: UT Consortium on Formation Evaluation (PI: C. Torres-Verdin).
2007	$1,050,000: UT Consortium on Formation Evaluation (PI: C. Torres-Verdin).
2006	$100,000: Shell (PI: C. Torres-Verdin).
2006	$900,000: UT Consortium on Formation Evaluation (PI: C. Torres-Verdin).

OTHER ACTIVITIES

2016-2023 **Young associated member of Jakiunde**, the Basque Academy of Sciences, Letters, and Arts.

2011-Present **Reviewer for the following agencies**: Swiss National Science Foundation, French National Research Agency (ANR), Romanian National Council for Research and Development, The Petroleum Institute, Abu Dhabi, FONCyT and FONDECYT, Chile, Spanish National Agency of Evaluation and Prospective (ANEP), Spain, Agencia Estatal de Investigacion (AEI), Spain, European Science Foundation, Kazakhstan Ministry of Education and Sciences, Kazakhstan, and Polish National Science Center, Poland.

2007-Present **Reviewer for the following journals**:
Area of Geophysics and Electromagnetism: Geophysics, Computational Geosciences, Journal of Geophysics and Engineering, IEEE Transactions on Geoscience and Remote Sensing, SPE Journal, Scientific Reports (nature), PIER &JEMWA, Journal of Applied Geophysics, Geophysical Journal International, Journal of Earth System Science, Geociencias Aplicadas Latinoamericanas, Geophysical Prospecting, Society of Petrophysicists & Well Log Analysts, Computers and Geosciences, SEG Annual Meeting Proceedings, Geophysical Prospecting, Int. J. of Geomathematics, Int. J. of RF and Microwave Computer-Aided Engineering.
Area of Mathematics: IMA Journal of Numerical Analysis, Applied Numerical Mathematics, ISRN Applied Mathematics, Computers and Mathematics with Applications, Communications in Nonlinear Science and Numerical Simulation.
Area of Scientific Computing: Computer Methods in Applied Mechanics and Engineering, International Journal for Numerical Methods in Engineering, Journal of Applied Mathematics and Computer Science, Journal of Computational Physics, Journal of Computational Sciences, International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, Finite Elements in Analysis & Design, International Journal for Numerical Methods in Biomedical Engineering.

2010-Present **Main organizer of the workshops:** “IN-DEEP Week on Neural Network solvers for PDEs”, Bilbao, 2024. “Minimum Residual & Least-Squares Finite Element Methods”, Bilbao, 2024. “MATHROCKS Workshop on HPC, Deep Learning and Numerics in Geophysics”, Bilbao, 2021. “MATHROCKS Workshop on Simulation and Inversion Methods in Geophysics”, online, 2020. “Int. Workshop on Multiphysics, Multiscale and Optimization Problems”. Fifth Edition (2018) at UPV/EHU, Bilbao, Spain. Fourth Edition (2016) at BCAM, Bilbao, Spain. Third Edition (2014) at BCAM, Bilbao, Spain. Second Edition (2012) at UPV/EHU, Bilbao, Spain. First Edition (2010) at BCAM, Bilbao, Spain.

OTHER ACTIVITIES (CONTINUATION)

2007-Present **Mini-symposium organizer** at: ICCS2025 (Singapore), DTE & AICOMAS 2025 (Paris, France), ECCOMAS 2024 (Lisboa, Portugal), ICCS2024 (Malaga, Spain), WONAP-DE2024 (Concepcion, Chile), MMLDT-CSET 2023 (El Paso, TX, USA), ICCS2023 (Prague, Czech Republic), ECCOMAS 2022 (Oslo, Norway), ICCS2022 (London, UK), WCCM-APCOM 2022 (Yokohama, Japan), MMLDT-CSET 2021 (San Diego, USA), ICCS2021 (Krakow, Poland), ICCS2020 (Amsterdam, Netherlands), ICCS2019 (Faro, Portugal), ICIAM2019 (Valencia, Spain), ICCS2018 (Wuxi, China), ICCS2017 (Zurich, Switzerland), ICCS2016 (San Diego, California), PANACM2015 (Buenos Aires, Argentina), ICCS2015 (Reykjavik, Iceland), ICCS2014 (Cairns, Australia), USNCCM12 (2013, Raleigh, NC, USA), ICCS2013 (Barcelona, Spain), ICCS2012 (Omaha, Nebraska, USA), ICCS2011 (Singapore), ECCM 2010 (Paris, France), ICCS2010 (Amsterdam, Netherlands), "Primera Reunión Conjunta SMM-RSME" (Oaxaca, México), and USNCCM8 (San Francisco, USA).

2014-Present **Member of the Scientific Committee** of: World Congress of Computational Mechanics (WCCM 2026), Munich, Germany, 150th European Study Group with Industry (ESGI, 2019), Workshop on Geophysical Applications and HPC (2017), Barcelona, Spain, VMAD7 (2017), Valparaiso, Chile, VMAD6 (2016), Valparaiso, Chile, VMAD5 (2015), Valparaiso, Chile, Second Basque-Hungarian Workshop on Numerical Methods for PDEs (2015), Bilbao, Spain, Doc-Course on Applied Mathematics and Optimization, March-May 2015, Seville, Spain, and Third BCAM Workshop on Computational Mathematics (2014), Bilbao, Spain.

2021-2025 **Member of ECCOMAS Managing Board.**

2019-2022 **Member of the Stakeholder Group** of the H2020 European Project FORESEE.

2019-2023 **Treasurer of MATH-IN** Mathematics-Industry Spanish Network and of the Spanish Platform on Modeling, Simulation, and Optimisation on a Digital Environment (PET-MSO-ED).

2010-2020 **Member of the Editorial Boards**: Guest Editor of the Special Issues on AIHPC4AS for Journal of Computational Sciences (2022, 2023). Guest Editor of the Special Issue on "Computational Electromagnetism" for Applied Sciences (2021). Guest Editor of Geosciences (2019-2021). Editor of the Industrial Day Proceedings of ICIAM 2019. Guest Editor of the Special Issue on "ICCS 2017: ABSAAS" for the Journal of Computational Sciences (2018). Guest Editor of the Special Issue on "Petroleum Engineering Applications: Borehole Simulations" for Geosciences (2018). Member of the Editorial board of The Scientific World Journal (Impact Factor: 1.73) (2012-2013) and ISRN Applied Mathematics (2010-2012).

2009-Present **Member of the Dissertation Committee** of: Marc Olm, Adrián Amor, Ignacio Brevis, Izar Azpiroz, Javier Omella, Sergio Rojas, Magdalena Grigoroscuta, Caroline Baldassari, Maria Teresa Cao Rial, and Cristina Naya Riveiro.

2012-2013 **Member of the Comittee Awards** of: Best SEMA Thesis (2018, 2020), Best Ph.D. Thesis ECCOMAS Prize (2013), and SEMA Best Young Researcher Prize (2012).

2023 **TV Program Teknopolis**, EITB, Spain.

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MAIN PUBLICATIONS

A) JOURNALS (PEER-REVIEWED)

1. C. Uriarte, M. Bastidas, **D. Pardo**, J. M. Taylor, and S. Rojas, *"Optimizing Variational Physics-Informed Neural Networks Using Least Squares",* "Computers and Mathematics with Applications (CAMWA)", under review, Dic. 2024.
2. S. Baharlouei, J. M. Taylor, C. Uriarte, and **D. Pardo**, *A Least-Squares-Based Neural Network (LS-Net) for Solving Linear Parametric PDEs,* "Computer Methods in Applied Mechanics and Engineering (CMAME)", under review, Dic. 2024.
3. J. M. Taylor, **D. Pardo**, and J. Muñoz-Matute *Regularity-Conforming Neural Networks (ReCoNNs) for solving Partial Differential Equations,* "Journal of Scientific Computing (JOSC)", under review, Dic. 2024.
4. Y. Peña-Sanchez, M. Penalba, T. Knudsen, V. Nava, and **D. Pardo**, *Development and Validation of a Health-aware Floating Offshore Wind Farm Simulation Platform: FOWLTY,* "Wind Energy and Engineering Research", in press, Dec. 2024.
5. J. M. Taylor, M. Bastidas, **D. Pardo**, and I. Muga, *Deep Fourier Residual method for solving time-harmonic Maxwell's equations,* "Journal of Computational Physics", Vol. 523, 113623, Feb. 2025.
6. I. Ramirez, J. Pino, **D. Pardo**, M. Sanz, L. del Rio, A. Ortiz, K. Morozovska, and J. I. Aizpurua, *Residual-based Attention Physics-informed Neural Networks for Efficient Spatio-Temporal Lifetime Assessment of Transformers Operated in Renewable Power Plants* .[En]gineering Applications of Artificial Intelligence", Vol. 139, Part B, 109556, Jan. 2025.
7. A. Fernandez-Navamuel, N. Gorostidi, **D. Pardo**, V. Nava, and E. Chatzi, *Gaussian Mixture autoencoder for uncertainty-aware damage identification in a Floating Offshore Wind Turbine,* "Wind Energy Science Discussions", pp. 1-33, Nov. 2024.
8. J. Gonzalez-Sieiro, **D. Pardo**, V. Nava, V. M. Calo, and M. Towara, *Reducing Spatial Discretization Error on Coarse CFD Simulations Using an OpenFOAM-Embedded Deep Learning Framework,* "Engineering with Computers", pp. 1-22, Sep. 2024.
9. J. Taylor, M. Basticas, V. M. Calo, and **D. Pardo**, *Adaptive Deep Fourier Residual method via overlapping domain decomposition,* "Computers Methods in Applied Mechanics and Engineering (CMAME)", Vol. 427, 116997, Jul. 2024.
10. I. Muga, I. Brevis, **D. Pardo**, O. Rodriguez, and K. G. van der Zee, *Learning quantities of interest from parametric PDEs: An efficient neural-weighted Minimal Residual approach,* "Computers and Mathematics with Applications (CAMWA)", Vol. 164, pp. 139-149, Jun. 2024.
11. M. Abedi, **D. Pardo**, and T. Alkhalifah, *Ensemble Deep Learning for enhanced seismic data reconstruction,* "IEEE Transactions on Geoscience and Remote Sensing", Vol. 62, 5916311, May. 2024.
12. S. Rojas, P. Maczuga, J. Munoz-Matute, **D. Pardo**, and M. Paszynski, *Robust Variational Physics-Informed Neural Networks,* "Computer Methods in Applied Mechanics and Engineering (CMAME)", Vol. 425, 116904, May. 2024.
13. A. Fernandez-Navamuel, **D. Pardo**, F. Magalhaes, D. Zamora-Sanchez, A. J. Omella, D. Garcia-Sanchez, *Deep Neural Network for damage detection in Infante Dom Henrique bridge using multi-sensor data,* "Structural Health Monitoring", Mar. 2024.
14. A. J. Omella and **D. Pardo**, *r-Adaptive deep learning method for solving partial differential equations,* "Journal of Computers & Mathematics with Applications (CAMWA)", Vol. 153, pp. 33-42, Jan. 2024.

MAIN PUBLICATIONS (*continued*)

A) JOURNALS (PEER-REVIEWED) (*continued*)

15. M. Los, M. Wozniak, K. Pingali, L.E. Garcia-Castillo, J. Alvarez-Aramberri, **D. Pardo**, and M. Paszynski, *Fast parallel IGA-ADS solver for time-dependent Maxwell's equations,* "Computers and Mathematics with Applications (CAMWAS)", Vol. 151, pp. 36-49, Dec. 2023.
16. O. Rodriguez-Melendez, J. M. Taylor, and **D. Pardo**, *Multimodal variational autoencoder (MVAE) for inverse problems in geophysics: application to a 1D magnetotelluric problem,* "Geophysical Journal International", Vol. 235 (3), pp. 2598-2613, Dec. 2023.
17. N. Gorostidi, **D. Pardo**, V. Nava, *Diagnosis of the Health Status of Mooring Systems for Floating Offshore Wind Turbines using Autoencoders,* "Ocean Engineering", Vol. 287, Part 2, Nov. 2023.
18. T. Teijeiro, J. M. Taylor, A. Hashemian, and **D. Pardo**, *Machine Learning Discovery of Optimal Quadrature Rules for Isogeometric Analysis,* "Computer Methods in Applied Mechanics and Engineering (CMAME)", Nov. 2023, 116310, Nov. 2023.
19. A. Fernandez-Navamuel, **D. Pardo**, F. Magalhaes, D. Zamora-Sanchez, A. J. Omella, and D. Garcia-Sanchez, *Bridge damage identification under varying environmental and operational conditions combining Deep Learning and numerical simulations,* "Mechanical Systems and Signal Processing", Vol. 200, 110471, Oct. 2023.
20. K. Noh, **D. Pardo**, and C. Torres-Verdin, *Physics-guided deep-learning inversion method for the interpretation of noisy logging-while-drilling resistivity measurements,* "Geophysical Journal International", Vol. 235 (1), pp.150-165, Oct. 2023.
21. M. Abedi, **D. Pardo**, T. Alkhalifah, *Semi-blind-trace algorithm for self-supervised attenuation of trace-wise coherent noise,* "Geophysical Prospecting", pp. 965-977, Oct. 2023.
22. M. Shahriari, **D. Pardo**, S. Kargaran, and T. Teijeiro, *Neural network architecture optimization using automated machine learning for borehole resistivity measurements,* "Geophysical Journal International", Vol. 234 (3), pp. 2487-2500, Sep. 2023.
23. L. F. Contreras, **D. Pardo**, E. Abreu , J. Muñoz-Matute, C. Diaz, and J. Galvis, *An exponential integration generalized multiscale finite element method for parabolic problems,* "Journal of Computational Physics", Vol. 479, 112014, Apr. 2023.

MAIN PUBLICATIONS (*continued*)

A) JOURNALS (PEER-REVIEWED) (*continued*)

24. C. Uriarte, **D. Pardo**, I. Muga, and J. Munoz-Matute, *A Deep Double Ritz Method (D2RM) for solving Partial Differential Equations using Neural Networks,* "Computer Methods in Applied Mechanics and Engineering", Vol. 405, 115892, Feb. 2023.
25. J. M. Taylor, **D. Pardo**, and I. Muga, *A Deep Fourier Residual method for solving PDEs using Neural Networks,* "Computer Methods in Applied Mechanics and Engineering", vol. 405, 115850, Feb. 2023.
26. M. Abedi, and **D. Pardo**, *A Multidirectional Deep Neural Network for Self-Supervised Reconstruction of Seismic Data,* "IEEE Transactions on Geosciences and Remote Sensing", vol. 60, 5924809, Dec. 2022.
27. F. V. Caro, V. Darrigrand, J. Alvarez-Aramberri, E. Alberdi, and **D. Pardo**, *A painless multi-level automatic goal-oriented -adaptive coarsening strategy for elliptic and non-elliptic problems,* "Computer Methods in Applied Mechanics and Engineering", vol. 401, part B, 115641, Nov. 2022.
28. A. Hashemian, D. Garcia, **D. Pardo**, and V. M. Calo, *Refined isogeometric analysis of quadratic eigenvalue problems,* "Computer Methods in Applied Mechanics and Engineering", vol. 399, 115327, Sep. 2022.
29. K. Noh, C. Torres-Verdin, and **D. Pardo**, *Real-time 2.5D Inversion of LWD Resistivity Measurements Using Deep Learning for Geosteering Applications Accross Faulted Formations,* "Petrophysics", vol. 63, Nr. 4, pp. 506-518, Aug. 2022.
30. J. Munoz-Matute, **D. Pardo**, and V. M. Calo *Exploiting the Kronecker product structure of phi-functions in Exponential Integrators,* "International Journal for Numerical Methods in Engineering (IJNME)", Vol. 123, Issue 9, pp. 2142-2161, May 2022.
31. A. Fernandez-Navamuel, D. Zamora-Sanchez, A. J. Omella, **D. Pardo**, D. Garcia-Sanchez, and F. Magalhaes, *Supervised Deep Learning with Finite Element simulations for damage identification in bridges,* "Engineering Structures", Vol. 257, pp. 114016, Mar. 2022.
32. J. A. Rivera, J. M. Taylor, A. J. Omella, and **D. Pardo**, *On quadrature rules for solving Partial Differential Equations using Neural Networks,* "Computer Methods in Applied Mechanics and Engineering", Vol. 393, pp. 114710, Apr. 2022.
33. J. Munoz-Matute, L. F. Demkowicz, and **D. Pardo**, *Error representation of the time-marching DPG scheme,* "Computer Methods in Applied Mechanics and Engineering (CMAME)", Vol. 391, pp. 114480, Mar. 2022.
34. C. Uriarte, **D. Pardo**, and A. J. Omella, *A Finite Element based Deep Learning solver for parametric PDEs,* "Computer Methods in Applied Mechanics and Engineering (CMAME)", Vol. 391, pp. 114562, Mar. 2022.
35. M. Shahriari, A. Hazra, and **D. Pardo**, *A deep learning approach to design a borehole measurement acquisition system for geosteering,* "Geophysics", Vol. 87 (2), pp. D83-D90, Mar. 2022.
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224. **D. Pardo**, C. Torres-Verdín, *Oil Detection in Large Distances Surface-to-Surface and Surface-to-Borehole Electromagnetic (EM) Measurements Due to Energized Steel Casing,* "Shell Report", Jul 2006.
225. **D. Pardo**, C. Torres-Verdín, L. Demkowicz, *Study of Invasion Effects in Surface-to-Borehole and Cross-Well Electromagnetic (EM) Measurements Due to Energized Steel Casing,* "Shell Report", Jun 2006.
226. M. Paszynski, **D. Pardo**, L. Demkowicz, and C. Torres-Verdín, *Parallel hp-Finite Element Simulations of 3D Resistivity Logging Instruments,* "ICES Report 06-01", Jan 2006.
227. **D. Pardo**, C. Torres-Verdín, and L. Demkowicz, *Simulation of Surface-to-Borehole and Cross-Well EM Measurements Due to Energized Steel Casing,* "Shell Report", Jan 2006.
228. **D. Pardo**, C. Torres-Verdin, and L. Demkowicz, *Comparison of a Goal-Oriented hp-Adaptive Strategy vs. a Radial Code,* "Baker-Atlas Report", Nov 2005.
229. **D. Pardo**, C. Torres-Verdín, and L. Demkowicz, *Using a Goal-Oriented hp-Adaptive Strategy to Solve a DC Resistivity Logging Model Problem,* "Baker-Atlas Report", Jul 2004.
230. **D. Pardo**, and L. Demkowicz, *Fully Automatic Goal-Oriented hp-Adaptivity for Elliptic Problems.* "Baker-Atlas Report", May 2004.
231. **D. Pardo,** *An hp-Adaptive Finite Element (FE) Method for Solving Electromagnetic (EM) Problems. Part I: Petroleum Engineering Applications,* "Baker-Atlas Report", May 2003.
232. L. Demkowicz, **D. Pardo**, and W. Rachowicz, *3D hp-Adaptive Finite Element Package (3Dhp90). Version 2.0. The Ultimate Data Structure for Three-Dimensional, Anisotropic hp-Refinements,* "TICAM Report 02-24", Oct 2002.

*the content of some technical reports is confidential and cannot be published in journals, since they have been created as part of a research project for different oil-companies, and technical results cannot be relased.

MAIN PRESENTATIONS

A) CONGRESS OR WORKSHOP

1. J. M. Taylor, S. Baharlouei, C. Uriarte, M. Bastidas, Tomas Teijeiro, and **D. Pardo**, *The challenges of integrating neural networks for solving parametric PDEs*, "DTE & AICOMAS 2025", semi-plenary lecture, Paris, France, Feb. 2025. (invited)
2. V. M. Calo, P. Behnoudfar, Q. Deng, A. Ern, L. Espath, J. Giraldo, J. Hasbani, A. Hashemian, N. Labanda, I. Muga, **D. Pardo**, T. Poulet, S. Rojas, and P. Sepulveda, *Adaptive stabilized finite element methods*, "Computational Techniques and Applications Conference (CTAC 2024)", Melbourne, Australia, Nov. 2024. (invited)
3. I. Brevis, I. Muga, **D. Pardo**, O. Rodriguez, and K. G. van der Zee, *Learning quantities of intererest from parametric PDEs*, "Minimum Residual (MINRES)", Bilbao, Spain. Jul. 2024. (invited)
4. S. Rojas, P. Maczuga, J. Munoz-Matute, **D. Pardo**, and M. Paszynski *Robust Variational Physics-Informed Neural Networks*, "Minimum Residual (MINRES)", Bilbao, Spain. Jul. 2024. (invited)
5. C. Uriarte, M. Bastidas, J. M. Taylor, S. Rojas, and **D. Pardo**, *Optimizing Variational Physics-Informed Neural Networks Using Least Squares*, "Minimum Residual (MINRES)", Bilbao, Spain. Jul. 2024. (invited)
6. M. Bastidas, J. M. Taylor, V. M. Calo, and **D. Pardo**, *Adaptive Deep Fourier Residual method for solving PDEs on polygonal domains*, "Minimum Residual (MINRES)", Bilbao, Spain. Jul. 2024. (invited)
7. **D. Pardo**, J. M. Taylor, S. Baharlouei, C. Uriarte, M. Bastidas, and T. Teijeiro, *Variational PINNs for solving parametric PDEs*, "Spanish Congress on Differential Equations and Applications (CEDYA 2024)", plenary talk, Bilbao, Spain. Jul. 2024. (invited)
8. C. Uriarte, M. Bastidas, J. M. Taylor, **D. Pardo**, and S. Rojas *Optimizing Variational Physics-Informed Neural Networks Using Least Squares*, "Spanish Congress on Differential Equations and Applications (CEDYA 2024)", Bilbao, Spain. Jul. 2024. (invited)
9. A. J. Omella, M. Strugaru, **D. Pardo**, and I. Muga, *On the numerical performance of a Discontinuous Deep Ritz Method for PDEs with discontinuities in the data and solution*, "24th International Conference on Computational Sciences (ICCS 2024)", Malaga, Spain. Jul. 2024. (invited)
10. A. Fdez-Navamuel, **D. Pardo**, D. Zamora-Sanchez, and A. J. Omella, *Damage detection using a Deep Autoencoder: exploring limits and confidence in diagnostics*, "24th International Conference on Computational Sciences (ICCS 2024)", Malaga, Spain. Jul. 2024. (invited)
11. M. Bastidas, C. Uriarte, J. Taylor, S. Rojas, and **D. Pardo**, *Optimizing Robust Variational Physics-Informed Neural Networks using Least Squares*, "24th International Conference on Computational Sciences (ICCS 2024)", Malaga, Spain. Jul. 2024. (invited)
12. J. Gonzalez-Sieiro, **D. Pardo**, V. Nava, V. M. Calo, and M. Towara, *Combining OpenFOAM and Deep Learning for Minimizing the Spatial Discretization Error on Coarse Meshes*, "24th International Conference on Computational Sciences (ICCS 2024)", Malaga, Spain. Jul. 2024. (invited)
13. M. Bastidas, J. Taylor, and **D. Pardo**, *Adaptive Deep Fourier Residual method for solving PDEs on polygonal domains*, "24th International Conference on Computational Sciences (ICCS 2024)", Malaga, Spain. Jul. 2024. (invited)
14. C. Uriarte, **D. Pardo**, V. M. Calo, J. Taylor, and I. Muga, *Goal-Oriented Adaptivity Using Artificial Neural Networks*, "24th International Conference on Computational Sciences (ICCS 2024)", Malaga, Spain. Jul. 2024. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

15. A. J. Omella, M. Strugaru, **D. Pardo**, and I. Muga, *On the numerical performance of a Discontinuous Deep Ritz Method for PDEs with discontinuities in the data and solution*, "24th International Conference on Computational Sciences (ICCS 2024)", Malaga, Spain. Jul. 2024. (invited)
16. C. Uriarte, **D. Pardo**, J. Taylor, V. M. Calo, and I. Muga, *Goal-Oriented Adaptivity for solving Partial Differential Equations using Neural Networks*, "9th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2024)", Lisbon, Portugal, Jun. 2024. (invited)
17. T. Teijeiro, **D. Pardo**, and V. M. Calo, *Generating Efficient Randomized Quadrature Rules for 2D and 3D Trunk Spaces using Machine Learning*, "9th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2024)", Lisbon, Portugal, Jun. 2024. (invited)
18. M. Bastidas, C. Uriarte, J. Taylor, S. Rojas, and **D. Pardo**, *UltraPINNs: Exploiting ultraweak implementations to boost the performance of Variational PINNs*, "9th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2024)", Lisbon, Portugal, Jun. 2024. (invited)
19. J. Taylor, **D. Pardo**, and J. Muñoz-Matute, *Regularity-Conforming Neural Networks for PDEs*, "9th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2024)", Lisbon, Portugal, Jun. 2024. (invited)
20. J. González-Sieiro, **D. Pardo**, V. Nava, and V. M. Calo, *Enhancing OpenFOAM with Deep Learning for Minimising the Spatial Discretisation Error on Coarse Meshes*, "9th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2024)", Lisbon, Portugal, Jun. 2024. (invited)
21. M. Strugaru, A. J. Omella, **D. Pardo**, and I. Muga, *A Discontinuous Deep Ritz Method for PDEs*, "9th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2024)", Lisbon, Portugal, Jun. 2024. (invited)
22. A. J. Omella, J. González-Sieiro, T. Teijeiro, and **D. Pardo**, *r-Adaptive Deep Learning PDE Solver With Triangular Meshes*, "9th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2024)", Lisbon, Portugal, Jun. 2024. (invited)
23. S. Rojas, M. Paszynski, P. Maczuga, J. Muñoz-Matute, and **D. Pardo**, *Robust Variational Physics-Informed Neural Networks*, "9th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2024)", Lisbon, Portugal, Jun. 2024. (invited)
24. A. Fdez-Navamuel, **D. Pardo**, F. Magalhaes, D. Zamora-Sanchez, A. Omella, and D. Garcia-Sanchez, *Combining experimental and synthetic data in Deep Learning for damage detection*, "9th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2024)", Lisbon, Portugal, Jun. 2024. (invited)
25. M. Bastidas, **D. Pardo**, S. Rojas, J. Taylor, and C. Uriarte *Ultra-PINNs: Exploiting Ultraweak Implementations To Boost The Performance Of Variational PINNs*, "7th Chilean Workshop on Numerical Analysis of Partial Differential Equations (WONAPDE 2024)", Concepción, Chile, Jan. 2024. (invited)
26. M. Bastidas, I. Muga, **D. Pardo**, and J. Taylor, *The Deep Fourier Residual Method For PDEs: H1 And H(curl) Test Spaces*, "7th Chilean Workshop on Numerical Analysis of Partial Differential Equations (WONAPDE 2024)", Concepción, Chile, Jan. 2024. (invited)
27. M. Bastidas, **D. Pardo**, and J. Taylor, *Adaptive Deep Fourier Residual Method For Solving PDEs On Polygonal Domains*, "7th Chilean Workshop on Numerical Analysis of Partial Differential Equations (WONAPDE 2024)", Concepción, Chile, Jan. 2024. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

28. A. Fernandez-Navamuel, D. Zamora-Sanchez, D. Garcia-Sanchez, **D. Pardo**, O. Rodriguez, and F. Magalhaes, *Structural damage identification accounting for varying environmental and operational conditions using Deep Learning*, "Experimental Vibration Analysis for Civil Engineering Structures (EVACES 2023)", Milan, Italy, Oct. 2023. (invited)
29. S. Rojas, P. Maczuga, J. Munoz-Matute, **D. Pardo**, and M. Paszynski, *Stabilized Physics-Informed Neural Networks*, "MMLDE-CSET2023 Conference", El Paso, Texas, Sep. 2023. (invited)
30. C. Uriarte, **D. Pardo**, I. Muga, and J. Munoz-Matute, *The Deep Double Ritz Method: a Deep Learning Residual Minimization Method for solving Partial Differential Equations*, "MMLDE-CSET2023 Conference", El Paso, Texas, Sep. 2023. (invited)
31. I. Brevis, **D. Pardo**, O. Rodriguez, K.G. van der Zee, *Learning quantities of interest from parametric PDEs*, "MMLDE-CSET2023 Conference", El Paso, Texas, Sep. 2023. (invited)
32. A. J. Omella, **D. Pardo**, M. Strugaru, and I. Muga, *A Deep Neural Network Discontinous Galerkin method for solving PDEs involving discontinuities*, "21st IMACS World Congress", Rome, Italy, Sep. 2023. (invited)
33. C. Uriarte, **D. Pardo**, and I. Muga, *Goal-oriented Deep Ritz and Least-Squares methods*, "23rd International Conference on Computational Science (ICCS)", Prague, Czech Republic, Jul. 2023. (invited)
34. J. Alvarez-Aramberri, V. Darrigrand, F. Caro, and **D. Pardo**, *An Adaptive Strategy to Solve Parametric PDEs to Generate Massive Databases for Deep Learning Inversion*, "23rd International Conference on Computational Science (ICCS)", Prague, Czech Republic, Jul. 2023. (invited)
35. J. M. Taylor, **D. Pardo**, I. Muga, and M. Bastidas *Deep Fourier Residual method for PDEs with H1 and H(curl) test function spaces*, "23rd International Conference on Computational Science (ICCS)", Prague, Czech Republic, Jul. 2023. (invited)
36. A. Fernandez-Navamuel, **D. Pardo**, D. Zamora-Sanchez and A. J. Omella, *Combining Deep Learning and Computational Mechanics in structural damage assessment under environmental and operational variability*, "23rd International Conference on Computational Science (ICCS)", Prague, Czech Republic, Jul. 2023. (invited)
37. C. Uriarte, J. M. Taylor, **D. Pardo**, O. Rodriguez, and P. Vega, *Memory-based Monte Carlo integration for solving Partial Differential Equations using Neural Networks*, "23rd International Conference on Computational Science (ICCS)", Prague, Czech Republic, Jul. 2023. (invited)
38. A. Fdez-Navamuel, **D. Pardo**, F. Magalhaes, D. Zamora-Sanchez, A.J. Omella, and D. Garcia-Sanchez, *Deep Learning-based bridge damage detection by combining local and global variables*, "9th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN)", Athens, Greece, Jun. 2023. (invited)
39. M. Abedi, and **D. Pardo**, *Multidirectional deep learning for data reconstruction*, "84th EAGE Annual Conference", Vienna, Austria, Jun. 2023. (invited)
40. M. Abedi, **D. Pardo**, and T. Alkhalifah, *Multi-blind-trace deep learning with a hybrid loss for attenuation of trice-wise noise*, "84th EAGE Annual Conference", Vienna, Austria, Jun. 2023. (invited)
41. I. Brevis, I. Muga, **D. Pardo**, O. Rodriguez, and K. G. van der Zee, *A Machine Learning Minimal Residual Method for Solving Quantities of Interest of Parametric PDEs*, "SIAM Conference on Computational Science and Engineering (CSE23)", Poster Presentation, Amsterdam, The Netherlands, Feb 2023. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

42. C. Uriarte, **D. Pardo**, I. Muga, and J. Munoz-Matute, *A Deep Double Ritz Method for solving PDEs*, "Numerical Methods in Geophysics: Present, Future, and Applications", Valparaiso, Chile, Jan. 2023. (invited)
43. A. J. Omella and **D. Pardo**, *Deep learning mesh-based methods for solving PDEs: from r-adaptivity to DG*, "Numerical Methods in Geophysics: Present, Future, and Applications", Valparaiso, Chile, Jan. 2023. (invited)
44. J. Alvarez-Aramberri, F. Caro, V. Darrigrand, and **D. Pardo**, *Goal-Oriented Adaptivity for Parametric PDEs to Generate Massive Databases for Deep Learning Inversion*, "Numerical Methods in Geophysics: Present, Future, and Applications", Valparaiso, Chile, Jan. 2023. (invited)
45. **D. Pardo**, M. Abedi, M. Shahriari, A. Hashemian, J. A. Rivera, and A. J. Omella, *Machine Learning for modeling and interpreting geophysical borehole measurements*, "2nd Geosteering Formation Evaluation Workshop", Stavenger, Norway, Nov. 2022. (invited)
46. V. Nava, A. Aristondo, V. Varo, M. Esteras, I. Touzon, F. Boto, I. Mendikia, P. Ruiz-Minguela, S. Gil-Lopez, N. Gorostidi, and **D. Pardo**, *On building physics-based AI models for the design and SHM of mooring systems*, "5th International Conference on Renewable Energies Offshore (RENEW 2022)", Lisbon, Portugal, Nov. 2022. (invited)
47. J. Alvarez-Aramberri, V. Darrigrand, F. V. Caro, and **D. Pardo**, *A Goal-Oriented hp-Strategy for the Generation of Massive Databases for Deep Learning Inversion*, "Congress on Numerical Methods in Engineering (CMN 2022)", Las Palmas de Gran Canaria, Spain, Sep. 2022. (invited)
48. A. J. Omella and **D. Pardo**, *r-adaptive meshes using Deep Neural Networks for solving Partial Differential Equations*, "Congress on Numerical Methods in Engineering (CMN 2022)", Las Palmas de Gran Canaria, Spain, Sep. 2022. (invited)
49. **D. Pardo**, *Geosteering using Deep Learning*, "Congress on Numerical Methods in Engineering (CMN 2022)", Las Palmas de Gran Canaria, Spain, Sep. 2022. (invited)
50. C. Uriarte, **D. Pardo**, J. Munoz-Matute, and I. Muga, *Adversarial Neural Networks for solving variationally formulated Partial Differential Equations*, "World Congress on Computational Mechanics (WCCM-APCOM)", Yokohama, Japan, Aug. 2022. (invited)
51. A. Hashemian, D. Garcia, **D. Pardo**, and V. M. Calo, *Refined Isogeometric Analysis for quadratic engensystems of vector-valued multifield problems*, "World Congress on Computational Mechanics (WCCM-APCOM)", Yokohama, Japan, Aug. 2022. (invited)
52. F. V. Caro, V. Darrigrand, J. Alvarez-Aramberri, E. Alberdi, and **D. Pardo**, *A painless automatic hp-adaptive coarsening strategy for non-SPD problems: a goal-oriented approach*, "World Congress on Computational Mechanics (WCCM-APCOM)", Yokohama, Japan, Aug. 2022. (invited)
53. A. J. Omella and **D. Pardo**, *r-adaptive Deep Learning method for solving Partial Differential Equations*, "World Congress on Computational Mechanics (WCCM-APCOM)", Yokohama, Japan, Aug. 2022. (invited)
54. J. A. Rivera, A. J. Omella, J. M. Taylor, and **D. Pardo**, *Adaptive integration to overcome quadrature problems in Neural Networks*, "World Congress on Computational Mechanics (WCCM-APCOM)", Yokohama, Japan, Aug. 2022. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

55. M. Paszynski, R. Grzeszczuk, W. Dzwinel, and **D. Pardo**, *Deep Neural Network-driven hp-adaptive finite element method in three dimensions*, "8th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2022)", Oslo, Norway, Jun 2022. (invited)
56. F. V. Caro, V. Darrigrand, J. Alvarez-Aramberri, E. Alberdi, and **D. Pardo**, *Goal-oriented hp-adaptive finite element methods: a painless multilevel automatic coarsening strategy for non-SPD problems*, "8th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2022)", Oslo, Norway, Jun 2022. (invited)
57. J. Munoz-Matute, **D. Pardo**, and L. F. Demkowicz, *Multistage DPG time-marching scheme for semi-linear problems*, "8th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2022)", Oslo, Norway, Jun 2022. (invited)
58. A. Hashemian, D. Garcia, **D. Pardo**, and V. M. Calo, *Performance of Refined Isogeometric Analysis in Solving Generalized Quadratic Eigenvalue Problems*, "8th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2022)", Oslo, Norway, Jun 2022. (invited)
59. I. Brevis, I. Muga, **D. Pardo**, O. Rodriguez, and K. G. van der Zee, *A machine learning minimal residual method for solving quantities of interest of parametric PDEs*, "8th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2022)", Oslo, Norway, Jun 2022. (invited)
60. A. Fernandez-Navamuel, D. Zamora-Sanchez, D. Garcia-Sanchez, F. Magalhaes, and **D. Pardo**, *Damage Detection in Bridge Structures Using an Unsupervised Deep Autoencoder*, "8th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2022)", Oslo, Norway, Jun 2022. (invited)
61. M. Shahriari, **D. Pardo**, and J. A. Rivera, *Geosteering using Deep Learning*, "8th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2022)", Oslo, Norway, Jun 2022. (invited)
62. C. Uriarte, **D. Pardo**, J. Muñoz-Matute, and I. Muga, *A Generative Adversarial Networks approach for solving Partial Differential Equations*, "8th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2022)", Oslo, Norway, Jun 2022. (invited)
63. A. J. Omella and **D. Pardo**, *A Deep r-Adaptive Mesh Method for solving Partial Differential Equations*, "8th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2022)", Oslo, Norway, Jun 2022. (invited)
64. J. A. Rivera, A. J. Omella, J. M. Taylor, and **D. Pardo**, *On quadrature rules for solving Partial Differential Equations with Neural Networks*, "8th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2022)", Oslo, Norway, Jun 2022. (invited)
65. I. Muga, I. Brevis, K. van der Zee, O. Rodriguez, and **D. Pardo**, *Learning optimal test functions for goal-oriented FEM*, "International Conference on Computational Sciences (ICCS 2022)", London, United Kingdom, Jun 2022. (invited)
66. F. V. Caro, V. Darrigrand, J. Alvarez-Aramberri, E. Alberdi, and **D. Pardo**, *1D Painless Multi-Level Automatic Goal-Oriented h and p Adaptive Strategies using a Pseudo-Dual Operator*, "International Conference on Computational Sciences (ICCS 2022)", London, United Kingdom, Jun 2022. (invited)
67. C. Uriarte, **D. Pardo**, J. Muñoz-Matute, and I. Muga, *An Adversarial Networks approach for solving Partial Differential Equations*, "International Conference on Computational Sciences (ICCS 2022)", London, United Kingdom, Jun 2022. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

68. J. Munoz-Matute, L. Demkowicz, and **D. Pardo**, *Time-marching DPG scheme and adaptivity for transient partial differential equations*, "International Conference on Computational Sciences (ICCS 2022)", London, United Kingdom, Jun 2022. (invited)
69. I. Martinez, D. J. Palomar, M. Garate, **D. Pardo**, A. J. Omella, J. Garcia, and A. Pena, *A Multiphysics Approach for Minimizing Losses of a WLTP Driving Cycle*, "11th International Conference on Power Electronics, Machines and Drives (PEMD 2022)", Newcastle University, UK, Jun. 2022. (invited)
70. M. Abedi, **D. Pardo**, and A. Stovas, *Direct approximation of traveltime derivatives for geometric spreading calculation in layered VTI media*, "83 EAGE Annual Conference and Exhibition", Madrid, Spain, Jun 2022. (invited)
71. **D. Pardo**, A. J. Omella, J. M. Taylor, C. Uriarte, J. A. Baranda, and M. Grigoroscuta, *Geophysics, Partial Differential Equations, and Deep Learning*, Plenary talk at "9º Congreso Metropolitano de Modelado y Simulacion Numerica", Mexico, May 2022. (invited)
72. N. Gorostidi, V. Nava, A. Aristondo, and **D. Pardo**, *Predictive Maintenance of Floating Offshore Wind Turbine Mooring Lines using Deep Neural Networks*, "Wind Europe 2022", Bilbao, Spain, Apr. 2022. (invited)
73. J. M. Taylor, J. A. Rivera, A. J. Omella, and **D. Pardo**, *On Quadrature Rules for Solving Partial Differential Equations Using Deep Learning*, "MATHROCKS Workshop on HPC, Deep Learning, and Numerics in Geophysics", Bilbao, Spain, Nov. 2021. (invited)
74. A. Hashemian, **D. Pardo**, and V. M. Calo, *Refined Isogeometric Analysis for the Massive Database Generation of 2.5D Borehole Electromagnetic Measurements*, "MATHROCKS Workshop on HPC, Deep Learning, and Numerics in Geophysics", Bilbao, Spain, Nov. 2021. (invited)
75. M. Shahriari and **D. Pardo**, *An Automated Deep Learning Algorithm for the Inversion of Borehole Resistivity Measurements*, "MATHROCKS Workshop on HPC, Deep Learning, and Numerics in Geophysics", Bilbao, Spain, Nov. 2021. (invited)
76. J. Munoz-Matute, L. F. Demkowicz, and **D. Pardo**, *Time-marching DPG schemes for linear hyperbolic problems*, "4th Annual Meeting of the SIAM Texas-Louisiana Section TXLA21", South Padre Island (Texas), USA, Nov. 2021. (invited)
77. J. Munoz-Matute, L. F. Demkowicz, and **D. Pardo**, *Time marching DPG scheme and error representation for transient problems*, "4th Annual Meeting of the SIAM Texas-Louisiana Section TXLA21", South Padre Island (Texas), USA, Nov. 2021. (invited)
78. N. Gorostidi, V. Nava, and **D. Pardo**, *A Deep Learning Model for the Structural Health Monitoring of Floating Offshore Wind Turbine Mooring Lines based on Modal Parameters*, "17th EAWE Ph.D. Seminar", Porto, Portugal, Nov. 2021. (invited)
79. M. Abedi and **D. Pardo**, *A highly accurate traveltime approximation for large-offset reflections over layered VTI models*, "82nd EAGE Annual Conference and Exhibition", Amsterdam, Netherlands, Oct. 2021. (invited)
80. M. Shahriari, **D. Pardo**, A. Hazra, and J. A. Rivera, *Application of auto-ML for deep learning-based inversion of borehole resistivity measurement*, "Mechanistic Machine Learning and Digital Twins for Computational Science, Engineering & Technology (MMLDT-CSET)", San Diego, California, USA, Sep. 2021. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

81. A. Hashemian, D. Garcia, J. A. Rivera, and **D. Pardo**, *Refined Isogeometric Analysis: an Efficient Numerical Method for Massive Database Generation for 2.5D Borehole Electromagnetic Measurements*, "Mechanistic Machine Learning and Digital Twins for Computational Science, Engineering & Technology (MMLDT-CSET)", San Diego, California, USA, Sep. 2021. (invited)
82. A. Hashemian, D. Garcia, J. A. Rivera, and **D. Pardo**, *Database Generation for 2.5D Borehole Resistivity Measurements using Refined Isogeometric Analysis*, "Annual Users Meeting (JURES21) of the Spanish Supercomputer Network (RES)", Barcelona, Sep. 2021. (invited)
83. M. Shahriari, J. A. Rivera, and **D. Pardo**, *Uncertainty Quantification on the Inversion of Geosteering Measurements using Deep Learning*, "Fourth EAGE Borehole Geology Workshop", online, Sep. 2021. (invited)
84. J. Munoz-Matute, **D. Pardo**, and L. F. Demkowicz, *DPG-based time-marching-schemes for linear transient problems*, "16th US National Congress on Computational Mechanics (USNCCM16)", Chicago, USA, Jul. 2021. (invited)
85. F. Caro, V. Darrigrand, E. Alberdi, and **D. Pardo**, *A Painless Goal-Oriented hp-Adaptive Strategy for Indefinite Problems*, "16th US National Congress on Computational Mechanics (USNCCM16)", Chicago, USA, Jul. 2021. (invited)
86. A. Hashemian, M. Barton, and **D. Pardo**, *Spline Gauss Quadrature Rules for Refined Isogeometric Discretizations*, "16th US National Congress on Computational Mechanics (USNCCM16)", Chicago, USA, Jul. 2021. (invited)
87. J. Munoz-Matute, **D. Pardo**, and V. M. Calo, *Exploiting the Kronecker product structure of ϕ-functions with applications to exponential time integrators*, "International Conference on Computational Science ICCS 2021", Krakow, Poland, Jun. 2021. (invited)
88. J. Munoz-Matute, **D. Pardo**, and L. F. Demkowicz, *A Discontinuous Petrov-Galerkin method for solving linear transient parabolic problems*, "CEDYA 2021", Gijon, Spain, Jun. 2021. (invited)
89. E. Alberdi, F. Caro, V. Darrigrand, and **D. Pardo**, *A Painless Multi-level Automatic Goal-Oriented hp-Adaptive Coarsening Strategy*, "CEDYA 2021", Gijon, Spain, Jun. 2021. (invited)
90. A. Hazra, M. Shahriari, and **D. Pardo**, *Sensor Placement for Borehole Measurements Using Deep Learning in Presence of Noisy Data*, " SIAM Conference on Mathematical & Computational Issues in the Geosciences (GS21)", online, Jun. 2021. (invited)
91. J. Munoz-Matute, **D. Pardo**, and L. Demkowicz, *DPG-based time-marching-schemes for linear parabolic and hyperbolic partial differential equations*, "10th International Conference on Adaptive Modeling and Simulation (ADMOS 2021)", online, Jun. 2021. (invited)
92. A. J. Omella, **D. Pardo**, M. Strugaru, J. Alvarez-Aramberri, V. Darrigrand, C. Santos, and H. Gonzalez, *Computing Effective P-Wave Velocity in Heterogeneous Rocks*, "CEDYA 2021", Gijon, Spain, Jun. 2021. (invited)
93. A. J. Omella, **D. Pardo**, D. Palomar, I. Martinez, M. Garate, J. Martinez, and A. Peña, *Multi-objective Optimization for the Design of Electric Motors*, "CEDYA 2021", Gijon, Spain, Jun. 2021. (invited)
94. A. Hashemian, D. Garcia, **D. Pardo**, and V. M. Calo, *Refined Isogeometric Analysis for Solving Quadratic Eigenproblems in Electromagnetics*, "International Conference on Computational Science (ICCS)", Krakow, Poland, Jun. 2021. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

95. C. Uriarte, A. J. Omella, and **D. Pardo**, *A Finite Element based Deep Learning solver for parametric PDEs*, "International Conference on Computational Science (ICCS)", Krakow, Poland, Jun. 2021. (invited)
96. J. A. Rivera, A. J. Omella and **D. Pardo**, *Deep Learning for solving partial differential equations using Ritz method*, "International Conference on Computational Science (ICCS)", Krakow, Poland, Jun. 2021. (invited)
97. M. Paszynski, R. Grzeszczuk, **D. Pardo**, and L. Demkowicz, *Deep learning driven self-adaptive hp finite element method*, "International Conference on Computational Science (ICCS)", Krakow, Poland, Jun. 2021. (invited)
98. J. A. Rivera, A. J. Omella, and **D. Pardo**, *Quadrature rules when solving PDEs using Neural Networks*, "Eight Metropolitan Congress on Modeling and Numerical Simulation", Mexico, May 2021. (invited)
99. K. Noh, C. Torres-Verdin, and **D. Pardo**, *Real-time 2.5D inversion of resistivity measurements using deep learning for geosteering*, "SPWLA 62nd Annual Logging Symposium", Boston, USA, May 2021. (invited)
100. J. Munoz-Matute, **D. Pardo**, and L. Demkowicz, *A DPG-based time marching scheme for linear hyperbolic problems*, "SIAM Conference on Computational Science and Engineering CSE21", online, Mar. 2021. (invited)
101. S. Alyaev, M. Shahriari, **D. Pardo**, A. J. Omella, E. Suter, D. s. Larse, and N. Jahani, *Validation Of A Deep Learning Surrogate Model For Extra-deep Electromagnetic Logs*, "SPE/IADC International Drilling Conference and Exhibition", Stavanger, Norway, Mar. 2021. (invited)
102. A. Hashemian, **D. Pardo**, and V. M. Calo, *Refined Isogeometric Analysis for Generalized Real-Symmetric Eigenvalue Problems*, "14th World Congress on Computational Mechanics WCCM 2020", online, Jan. 2021. (invited)
103. J. Munoz-Matute, **D. Pardo**, and L. Demkowicz, *Equivalence between the DPG method and the exponential integrators for linear parabolic problems*, "14th World Congress on Computational Mechanics WCCM 2020", online, Jan. 2021. (invited)
104. V. M. Calo, P. Benhoudfar, R. Cier, J. Giranldo, F. Kyburg, S. Rojas, A. Ern, I. Muga, and **D. Pardo**, *Adaptive stabilized finite element methods*, "MATHROCKS Worskhop on Simulation and Inversion Methods in Geophysics", online, Nov. 2020. (invited)
105. S. Alyaev, **D. Pardo**, A. J. Omella, D. S. Larsen, N. Jahani, and E. Suter, *Machine Learning in real-time geosteering application: a DNN model for extra-deep EM logs*, "MATHROCKS Worskhop on Simulation and Inversion Methods in Geophysics", online, Nov. 2020. (invited)
106. A. Hazra, M. Shahriari, and **D. Pardo**, *Design of a borehole resistivity measurement acquisition system using deep learning*, "MATHROCKS Worskhop on Simulation and Inversion Methods in Geophysics", online, Nov. 2020. (invited)
107. S. Rojas, **D. Pardo**, P. Behnoudfar, and V. M. Calo, *Discontinuous Galerkin based residual minimization for goal-oriented adaptive mesh refinement*, "MATHROCKS Worskhop on Simulation and Inversion Methods in Geophysics", online, Nov. 2020. (invited)
108. M. Abedi and **D. Pardo**, *Analytical approximation of seismic traveltime equation in anisotropic media*, "MATHROCKS Worskhop on Simulation and Inversion Methods in Geophysics", online, Nov. 2020. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

109. A. Fdez-Navamuel, **D. Pardo**, and V. Nava, *Challenges of applying Deep Neural Networks to the offshore wind energy sector*, "MATHEO Webinar", Bilbao, Spain, Oct. 2020. (invited)
110. **D. Pardo**, M. Shahriari, C. Torres-Verdín, A. Hazra, and J. A. Rivera, *Deep learning inversion of borehole resistivity measurements: algorithms, uncertainty, and tool design*, "Joint Industry Research Consortium on Formation Evaluation" (20th Annual Meeting), Austin, TX, USA, Aug. 2020. (invited)
111. M. Shahriari, **D. Pardo**, and A. Hazra, *Design of a Measurement Acquisition System using Deep Learning*, "PIXIL Workshop", Barcelona, Spain, Sep. 2020. (invited)
112. K. Noh, **D. Pardo**, and C. Torres-Verdín, *Real-time 2.5D inversion of LWD resistivity measurements using deep learning methods*, "Joint Industry Research Consortium on Formation Evaluation" (20th Annual Meeting), Austin, TX, USA, Aug. 2020. (invited)
113. **D. Pardo**, M. Shahriari, C. Torres-Verdín, A. Hazra, and J. A. Rivera, *Deep learning inversion of borehole resistivity measurements: algorithms, uncertainty, and tool design*, "Joint Industry Research Consortium on Formation Evaluation" (20th Annual Meeting), Austin, TX, USA, Aug. 2020. (invited)
114. S. Alyaev, M. Shahriari, **D. Pardo**, A.J. Omella, D.S. Larsen, N. Jahani, and E. Suter, *Modeling extra-deep EM logs using a deep neural network*, "NORCE Geosteering meeting", Norce, Norway, Jun. 2020. (invited)
115. J. A. Rivera, **D. Pardo** and E. Alberdi, *Design of Loss Functions for Solving Inverse Problems using Deep Learning*, "International Conference on Computer Science 2020", Amsterdam, Netherlands, Jun. 2020. (invited)
116. M. Shahriari, **D. Pardo**, J. A. Rivera, C. Torres-Verdín, A. Picon, J. del Ser, and A. J. Omella, *Deep Learning Inversion of Borehole Resistivity Measurements*, "PIXIL Workshop", Pau, France, May. 2020. (invited)
117. **D. Pardo** and J. Omella, *Modeling of Geophysical Problems*, "Deep Learning Workshop at Tecnalia", Zamudio, Spain, Nov. 2019. (invited)
118. M. Shahriari, **D. Pardo**, A. Picon, and C. Torres-Verdin, *Simulation and Inversion of Resistivity Measurements using Deep Learning*, "Formation Evaluation and Geosteering Workshop", Stavanger, Norway, Nov. 2019. (invited)
119. M. Shahriari, **D. Pardo**, and B. Moser, *A Deep Neural Network as Surrogate Model for Forward Simulation of Borehole Resistivity Measurements*, "ISM 2019", Rende, Italy, Nov. 2019. (invited)
120. V. Puzyrev, **D. Pardo**, V. M. Calo, and C. Torres-Verdin *Recent advances in inversion of deep directional borehole resistivity measurements*, "AEGC 2019", Perth, Australia, Sep. 2019. (invited)
121. D. Garcia, **D. Pardo**, and V. M. Calo, *Refined Isoogeometric Analysis for Multi-field Problems*, "IGA 2019", Munich, Germany, Sep. 2019. (invited)
122. M. Shahriari, **D. Pardo**, C. Torres-Verdín, J. A. Rivera, A. Picon, and J. del Ser, *Design Decisions for the Deep Learning Inversion of Borehole Resistivity Measurements*, "Joint Industry Research Consortium on Formation Evaluation" (Nineteen Annual Meeting), Austin, TX, USA, Aug. 2019. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

123. V. Darrigrand, **D. Pardo**, Th. Chaumont-Frelet, I. Gómez-Revuelto, and L. E. García-Castillo, *A Painless Automatic hp-Adaptive Strategy for Non-Elliptic Problems*, "The Mathematics of Finite Elements and Applications (MAFELAP 2019)", Brunel, UK, July 2019. (invited)
124. A. J. Omella, M. Strugaru, J. Álvarez-Aramberri, V. Darrigrand, **D. Pardo**, H. González, and C. Santos, *Upscaling effective compressional velocities of real rock samples*, "International Congress on Industrial and Applied Mathematics (ICIAM 2019)", Valencia, Spain, July 2019. (invited)
125. A. J. Omella, M. Strugaru, J. Álvarez-Aramberri, V. Darrigrand, **D. Pardo**, H. González, and C. Santos, *Low-frequency Upscaling of Effective Velocities in Heterogeneous Rocks*, "International Conference on Computational Sciences (ICCS 2019)", Faro, Portugal, July 2019. (invited)
126. V. Darrigrand, **D. Pardo**, Th. Chaumont-Frelet, I. Gómez-Revuelto, and L. E. García-Castillo, *A Painless Automatic hp-Adaptive Strategy for Elliptic 1D and 2D Problems*, "International Conference on Computational Sciences (ICCS 2019)", Faro, Portugal, July 2019. (invited)
127. D. García, **D. Pardo**, and V. M. Calo, *Refined Isogeometric Analysis (rIGA) for resistivity well-logging problems*, "International Conference on Computational Sciences (ICCS 2019)", Faro, Portugal, July 2019. (invited)
128. J. Muñoz-Matute, V. M. Calo, **D. Pardo**, and E. Alberdi, *Error Representation and Space-Time Goal-Oriented Adaptivity for the Advection-Diffusion Equation employing Explicit Runge-Kutta Methods*, "Congress on Numerical Methods in Engineering (CMN2019)", Gimaraes, Portugal, July 2019. (invited)
129. M. Shahriari, **D. Pardo**, A. Picon, A. Galdran„ J. del Ser, S. Ossandon, and C. Torres-Verdin, *Inversion of Resistivity Measurements Using Deep Learning*, "Computational Sciences and AI in Industry (CSAI) Conference", Jyvaskyla, Finland, Jun 2019. (invited)
130. I. Gomez-Revuelto, L. E. Garcia-Castillo, V. Darrigrand, **D. Pardo**, and Th. Chaumont-Frelet, *A Painless Automatic Goal-Oriented hp-Adaptive Strategy for H(curl) Problems*, "10th International Conference on Enviromental Engineering and Applications (ICEA 2019)", Czech Republic, Jun 2019. (invited)
131. J. Muñoz-Matute, **D. Pardo**, V. M. Calo, and E. Alberdi, *Explicit time integrators and forward-in-time goal oriented adaptivity*, "International Conference on Adaptive Modeling and Simulation (ADMOS 2019)", Alicante, Spain, May 2019. (invited)
132. V. Darrigrand, **D. Pardo**, Th. Chaumont-Frelet, I. Gómez-Revuelto, and L. E. García-Castillo, *A Painless Automatic Goal-Oriented hp-Adaptive Strategy for Elliptic Problems*, "International Conference on Adaptive Modeling and Simulation (ADMOS 2019)", Alicante, Spain, May 2019. (invited)
133. J. Muñoz-Matute, E. Alberdi, **D. Pardo**, and V. M. Calo, *Espazio-denborako EFMaren eta lerroen metodo esplizituen arteko*, "Ikergazte 2019", Bayonne, France, May 2019. (invited)
134. J. A. Rivera, **D. Pardo**, and E. Alberdi, *Zulaketa bidezko erresistibitate neurketen simulazioa problema errealen ebazpenean*, "Ikergazte 2019", Bayonne, France, May 2019. (invited)
135. D. García, **D. Pardo**, and V. M. Calo, *Refined Isogeometric Analysis (rIGA) for Electromagnetics*, "WONAPDE 2019", Concepción, Chile, Jan. 2019. (invited)
136. J. Muñoz-Matute, **D. Pardo**, V. M. Calo, and E. Alberdi, *TimeDiscontinuous Petrov-Galerkin Methods for the Advection-Diffusion Equation*, "WONAPDE 2019", Concepción, Chile, Jan. 2019. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

137. P. Sepúlveda, and **D. Pardo**, *A Spacetime Goal Oriented Adaptivity for an Explicit in Time Finite Element Method*, "WONAPDE 2019", Concepción, Chile, Jan. 2019. (invited)
138. M. Shahriari, **D. Pardo**, A. Picón, A. Galdrán, J. del Ser, and C. Torres-Verdín, *Inversion of Borehole Resistivity Measurements Using Deep Learning*, "WONAPDE 2019", Concepción, Chile, Jan. 2019. (invited)
139. S. Rojas, Q. Deng, A. Ern, I. Muga, and **D. Pardo**, *Stabilized Finite Element Method with Discontinuous Galerkin based Residual Minimization*, "Valparaíso´s Mathematics and its Applications Days (Vmad9)", Valparaíso, Chile, Jan. 2019. (invited)
140. I. Brevis, J. Ortega, and **D. Pardo**, *Time reversal methods for source reconstruction on acoustic and elastic waves*, "Valparaíso´s Mathematics and its Applications Days (Vmad9)", Valparaíso, Chile, Jan. 2019. (invited)
141. J. Muñoz-Matute, **D. Pardo**, V. M. Calo, and E. Alberdi, *Goal-Oriented Adaptivity employing Forward-in-Time Pseudo-Dual Problems*, "Valparaíso´s Mathematics and its Applications Days (Vmad9)", Valparaíso, Chile, Jan. 2019. (invited)
142. P. Sepulveda, **D. Pardo**, and J. Gopalakrishnan, *Two discontinuous spacetime methods for the linear transport and wave equations*, "Valparaíso´s Mathematics and its Applications Days (Vmad9)", Valparaíso, Chile, Jan. 2019. (invited)
143. V. Darrigrand, **D. Pardo**, Th. Chaumont-Frelet, I. Gómez, and L. E. García-Castillo, *A Painless Automatic hp-Adaptive Strategy for Elliptic 1D and 2D Problems: Preliminary Results*, "Valparaíso´s Mathematics and its Applications Days (Vmad9)", Valparaíso, Chile, Jan. 2019. (invited)
144. J. Álvarez-Aramberri, K. Key, and **D. Pardo**, *Advanced Numerical Methods to Enhance Electromagnetic Simulations*, "2018 Electromagnetic Methods Research Consortium", Columbia University, NYC, USA, Oct. 2018. (invited)
145. M. Shahriari, S. Rojas, **D. Pardo**, A. Rodriguez-Rozas, S. A. Bakr, V. M. Calo, and I. Muga, *A fast multiscale finite element method for geophysical resistivity measurements*, "20th International Conference on Structural and Computational Geophysics (ICSCG 2018)", Prague, Czechia, Sep. 2018. (invited)
146. J. Álvarez-Aramberri, K. Key, and **D. Pardo**, *Combining different spatial dimensions for the fast simulation of magnetotelluric problems*, "24th EM Induction Workshop", Helsingor, Denmark, Aug. 2018. (invited)
147. **D. Pardo**, M. Shahriari, J. A. Rivera, and C. Torres-Verdín, *Update on the Rapid Inversion of LWD Resistivity Measurements in UTAPWeLS*, "Joint Industry Research Consortium on Formation Evaluation" (Eighteen Annual Meeting), Austin, TX, USA, Aug. 2018. (invited)
148. M. Shahriari, **D. Pardo**, A. Picón, A. Galdrán, J. del Ser, and C. Torres-Verdín, *Deep Learning Method for the Rapid Inversion of Borehole Resistivity measurements*, "Joint Industry Research Consortium on Formation Evaluation" (Eighteen Annual Meeting), Austin, TX, USA, Aug. 2018. (invited)
149. J. Muñoz-Matute, V. M. Calo, **D. Pardo**, and E. Alberdi, *Adbekzio-difusio ekuazioaren errorearen adierazpena eta helburuetara orientatutako egokitzapena espazio-denboran Runge-Kutta esplizituak erabilita*, "III Encuentro de Matemáticos Vascos", Eibar, Spain, Jul 2018. (invited)
150. D. Guignard, S. Prudhomme, V. Darrigrand, **D. Pardo**, and K. Kergrene, *Adaptive Algorithm with Different Error Representations in Goal-Oriented Error Estimation*, "13th World Congress on Computational Sciences (ICCS 2018)", New York, NY, USA, Jul 2018. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

151. V. Darrigrand, **D. Pardo**, Th. Chaumont-Frelet, I. Muga, and S. Prudhomme, *Goal-Oriented hp-Adaptivity Using Unconventional Error Representations*, "13th World Congress on Computational Sciences (ICCS 2018)", New York, NY, USA, Jul 2018. (invited)
152. J. Muñoz-Matute, V. M. Calo, **D. Pardo**, and E. Alberdi, *Error Representation and Space-Time Goal-Oriented Adaptivity for the Advection-Diffusion Equation Employing Explicit Runge-Kutta Methods*, "13th World Congress on Computational Sciences (ICCS 2018)", New York, NY, USA, Jul 2018. (invited)
153. **D. Pardo**, C. Torres-Verdín and A. Rodríguez-Rozas, *Fast Dimensionally Adaptive Inversion of LWD and Deep Azimuthal Resistivity Measurements*, "IOR Geosteering Workshop", Bergen, Norway, Jun 2018. (invited)
154. M. Shahriari, S. Rojas, **D. Pardo**, A. Rodriguez-Rozas, S. A. Bakr, V. M. Calo, I. Muga and J. Muñoz, *A Fast 1.5D Multi-scale Finite Element Method for Borehole Resistivity Measurements*, "International Congress on Computational Sciences (ICCS 2018)", Wuxi, China, Jun 2018. (invited)
155. D. Garcia-Lozano, **D. Pardo**, V. M. Calo and J. Muñoz, *refined Isogeometric Analysis (rIGA): A multi-field application on a fluid flow scenario*, "International Congress on Computational Sciences (ICCS 2018)", Wuxi, China, Jun 2018. (invited)
156. J. Muñoz, **D. Pardo**, V. M. Calo and E. Alberdi, *Space-Time Goal-Oriented Adaptivity and Error Estimation for Parabolic Problems employing Explicit Runge-Kutta Methods*, "International Congress on Computational Sciences (ICCS 2018)", Wuxi, China, Jun 2018. (invited)
157. Th. Chaumont-Frelet, A. Rodríguez-Rozas, and **D. Pardo**, *Non-fitting grids in the finite element inversion of resistivity geosteering measurements*, "Fifth International Congress on Multiphysics, Multiscale, and Optimization Problems", Bilbao, Spain, May 2018. (invited)
158. D. García-Lozano, **D. Pardo**, and V. M. Calo, *Refined Isogeometric Analysis (rIGA) with multiphysics applications*, "Fifth International Congress on Multiphysics, Multiscale, and Optimization Problems", Bilbao, Spain, May 2018. (invited)
159. J. Muñoz,**D. Pardo**, V. M. Calo, and E. Alberdi, *Galerkin methods for time-domain goal-oriented adaptivity*, "Fifth International Congress on Multiphysics, Multiscale, and Optimization Problems", Bilbao, Spain, May 2018. (invited)
160. Th. Chaumont-Frelet, M. Shahriari, and **D. Pardo**, *A 1.5D adjoint-based formulation for computing derivatives of resistivity measurements with respect to bed boundary layers in geosteering*, "Fifth International Congress on Multiphysics, Multiscale, and Optimization Problems", Bilbao, Spain, May 2018. (invited)
161. E. Alberdi, J. Muñoz, **D. Pardo**, and V. M. Calo, *Time-domain goal-oriented adaptivity of the wave equation*, "EDP-Normandie Colloque", Caen, France, Oct 2017. (invited)
162. A. Rodriguez-Rozas, **D. Pardo**, and C. Torres-Verdín, *Dimensionally adaptive inversion of LWD and deep azimuthal resistivity measurements. Part II: Practical examples*, "Joint Industry Research Consortium on Formation Evaluation" (Seventeenth Annual Meeting), Austin, TX, USA, Aug 2017. (invited)
163. **D. Pardo**, A. Rodriguez-Rozas, Th. Chaumont-Frelet, M. Shahriari, and C. Torres-Verdín, *Dimensionally adaptive inversion of LWD and deep azimuthal resistivity measurements. Part I: Lastest advances*, "Joint Industry Research Consortium on Formation Evaluation" (Seventeenth Annual Meeting), Austin, TX, USA, Aug 2017. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

164. V. Darrigrand, **D. Pardo**, A. Rodríguez-Rozas, I. Muga, A. Romkes, and S. Prudhomme, *Unconventional Error Representations for Goal Oriented p-Adaptivity and its Applications*, "ADMOS 2017", Verbania, Italy, Jun 2017. (invited)

165. A. Rodriguez-Rozas, **D. Pardo**, and C. Torres-Verdin, *Fast simulations of 2.5D LWD resistivity tools*, "79th EAGE Conference and Exhibition", Paris, France, Jun 2017. (invited)

166. **D. Pardo**, C. Torres-Verdin, and A. Rodríguez-Rozas, *1.5D based inversion of logging-while-drilling resistivity measurements in 3D formations*, "79th EAGE Conference and Exhibition", Paris, France, Jun 2017. (invited)

167. A. Rodriguez-Rozas, **D. Pardo**, and C. Torres-Verdin, *Fast and parallel 2.5D finite element forward simulations of borehole resistivity measurements*, "Workshop on Geophysical Applications and HPC", Barcelona, Spain, Jun 2017. (invited)

168. M. Shahriari, S. Rojas, **D. Pardo**, A. Rodríguez-Rozas, and I. Muga, *Fast 1.5D numerical solver for electromagnetics*, "Workshop on Geophysical Applications and HPC", Barcelona, Spain, Jun 2017. (invited)

169. **D. Pardo**, C. Torres-Verdin, and A. Rodríguez-Rozas, *1.5D based inversion of logging-while-drilling and extra-deep azimuthal resistivity measurements in 3D formations*, "Workshop on Geophysical Applications and HPC", Barcelona, Spain, Jun 2017. (invited)

170. E. Alberdi, V. M. Calo, V. Darrigrand, J. Muñoz-Matute, I. Muga, **D. Pardo**, and A. Rodríguez-Rozas, *Pseudo-dual error representations for goal-oriented adaptivity: applications to time-domain and Helmholtz problems*, "Workshop on Geophysical Applications and HPC", Barcelona, Spain, Jun 2017. (invited)

171. Th. Chaumont-Frelet and **D. Pardo**, *Non-Fitting meshes for Maxwell's equations*, "International Congress on Computational Sciences (ICCS 2017)", Zurich, Switzerland, Jun 2017. (invited)

172. V. Darrigrand, A. Rodriguez-Rozas, **D. Pardo**, and I. Muga, *Goal-Oriented p-Adaptivity using Unconventional Error Representations for a 1D Steady State Convection-Diffusion Problem*, "International Congress on Computational Sciences (ICCS 2017)", Zurich, Switzerland, Jun 2017. (invited)

173. D. Garcia, M. Barton, and **D. Pardo**, *Optimally refined isogeometric analysis*, "International Congress on Computational Sciences (ICCS 2017)", Zurich, Switzerland, Jun 2017. (invited)

174. M. Smolka, R. Schaefer, **D. Pardo**, and J. Álvarez-Aramberri, *Local Tikhonov regularization in the hierarchic memetic inverse solver*, "ECCOMAS IMP 2017", Rzeszow-Krasiczyn, Poland, May 2017. (invited)

175. J. Muñoz-Matute, E. Alberdi, **D. Pardo**, and V. M. Calo *Denboraren eremuan helburuetara orientatutako egokitzapena errorearen ez-ohiko adierazpenak erabilita*, "Ikertzaile euskaldunen bigarren kongresua", Pamplona, Spain, May 2017. (invited)

176. A. Rodriguez-Rozas, **D. Pardo**, and C. Torres-Verdin, *Fast 3D Inversion of Borehole Resistivity Measurements using a Dimension-Adaptive Simulation Method*, "The 6th International Symposium in Three-Dimensional Electromagnetics", Berkely, California, USA, Mar. 2017. (invited)

177. S. Rojas, M. Shahriari, **D. Pardo**, and I. Muga, *An efficient 1.5D Galerkin method for geophysics*, "V-MAD7", Valparaiso, Chile, Jan 2017. (invited)

178. D. Garcia, **D. Pardo**, L. Dalcin, M. Paszynski, N. Collier, and V. M. Calo, *Refined Isogeometric Analysis (rIGA)*, "V-MAD7", Valparaiso, Chile, Jan 2017. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

179. E. Alberdi, J. Munoz, and **D. Pardo**, *Search of unconventional error representations for time-domain goal-oriented adaptivity*, "24th Conf. of Applied and Industrial Mathematics (CAIM 2016)", Craiova, Romania, Sep 2016. (invited)
180. A. Rodriguez-Rozas, **D. Pardo**, C. Torres-Verdín, *Advances toward the fast simulation of 2.5D LWD and deep azimuthal resistivity tools*, "Joint Industry Research Consortium on Formation Evaluation" (Sixteenth Annual Meeting), Austin, TX, USA, Aug 2016. (invited)
181. **D. Pardo**, C. Torres-Verdín, *Estimation of bed boundary locations and layer resistivities based on the rapid inversion of LWD resistivity measurements*, "Joint Industry Research Consortium on Formation Evaluation" (Sixteenth Annual Meeting), Austin, TX, USA, Aug 2016. (invited)
182. M. Paszysnki, G. Gurgul, D. Garcia-Lozano, and **D. Pardo**, *Efficient parallelization of direct solvers for isogeometric analysis*, "The 9th International Workshop on Parallel Matrix Algorithms and Applications (PMAA 2016)", Bordeaux, France, Jul 2016. (invited)
183. D. Garcia-Lozano, **D. Pardo**, L. Dalcin, M. Paszynski, and V. M. Calo, *Refined isogeometric analysis (rIGA): improved performance of direct solvers by controlling continuity*, "World Congress on Computational Mechanics (WCCM)", Seoul, Korea, Jul 2016. (invited)
184. V. Darrigrand, **D. Pardo**, I. Muga, and A. Rodriguez-Rozas, *Goal-oriented adaptivity using unconventional error representations*, "World Congress on Computational Mechanics (WCCM)", Seoul, Korea, Jul 2016. (invited)
185. J. Muñoz-Matute, **D. Pardo**, and A. Rodriguez-Rozas, *Time-domain goal-oriented adaptivity using unconvetional error representations*, "International Congress on Computational Sciences (ICCS 2016)", San Diego, CA, USA, Jun 2016. (invited)
186. D. Garcia-Lozano, **D. Pardo**, L. Dalcin, M. Paszynski, and V. M. Calo, *Refined isogeometric analysis (rIGA): improved performance of direct solvers by controlling continuity*, "High-Order Finite Element and Isogeometric Methods (HOFEIM)" (poster presentation), Jerusalem, Israel, Jun 2016. (invited)
187. J. Alvarez-Aramberri, and **D. Pardo**, *Towards a Dimensionally Adaptive Method in Magnetotellurics*, "ECCOMAS 2016", Creete, Greece, Jun 2016. (invited)
188. J. Alvarez-Aramberri, **D. Pardo**, and A. Rodriguez-Rozas, *Dimensional Adaptivity in Magnetotellurics*, "International Congress on Computational Sciences (ICCS 2016)", San Diego, CA, USA, Jun 2016. (invited)
189. M. Paszynski, R. Schaefer, K. Cetnarowicz, **D. Pardo**, and V. M. Calo, *Agent based simulations, adaptive algorithms, and solvers – preface*, "International Congress on Computational Sciences (ICCS 2016)", San Diego, CA, USA, Jun 2016. (invited)
190. A. Rodriguez-Rozas, **D. Pardo**, *A priori Fourier analysis for 2.5D finite element simulations of logging-while-drilling (LWD) resistivity measurements*, "International Congress on Computational Sciences (ICCS 2016)", San Diego, CA, USA, Jun 2016. (invited)
191. V. Darrigrand, **D. Pardo**, I. Muga, and A. Rodriguez-Rozas, *Unconventional error representations of goal-oriented adaptivity*, "International Conference on Spectral and High Order Methods (ICOSAHOM 2016)", Rio de Janeiro, Brazil, Jun 2016. (invited)
192. A. Erdozain, V. Peron, H. Barucq, and **D. Pardo**, *Derivation and validation of asymptotic models for the electric potential accross a highly conductive casing*, "Fourth International Congress on Multiphysics, Multiscale, and Optimization Problems", Bilbao, Spain, May 2016. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

193. I. Muga, S. Rojas, and **D. Pardo**, *A quadrature-free method for simulation of direct current borehole resistivity measurements*, "Fourth International Congress on Multiphysics, Multiscale, and Optimization Problems", Bilbao, Spain, May 2016. (invited)
194. V. Darrigrand, **D. Pardo**, I. Muga, and A. Rodriguez-Rozas, *Goal-oriented adaptivity using uconventional error representations for wave propagation problems*, "Fourth International Congress on Multiphysics, Multiscale, and Optimization Problems", Bilbao, Spain, May 2016. (invited)
195. D. Garcia-Lozano, **D. Pardo**, L. Dalcin, M. Paszynski, N. Collier, and V. M. Calo, *Refined isogeometric analysis (rIGA): improved performance of direct solvers by controlling continuity*, "Fourth International Congress on Multiphysics, Multiscale, and Optimization Problems", Bilbao, Spain, May 2016. (invited)
196. J. Vazquez-Corral, S. W. Zamir, A. Galdran, **D. Pardo**, M. Bertalmio, *Image processing applications through a variational perceptually-based color correction related to Retinex*, "IS&T International Symposium on Electronic Imaging 2016", San Francisco, CA, USA, Feb 2016. (invited)
197. A. Galdran, A. Picon, A. Alvarez-Gila, **D. Pardo**, J. Vazquez-Corral, and M. Bertalmio *Visibility recovery on images acquired in attenuating media. Application to underwater and fog image restoration*, "V-MAD6", Valparaiso, Chile, Jan 2016. (invited)
198. V. Darrigrand, **D. Pardo**, I. Muga and A. Rodríguez-Rozas, *Generalised Error Representations for Goal-Oriented Adaptivity*, "V-MAD6", Valparaiso, Chile, Jan 2016. (invited)
199. A. Erdozain, V. Peron, H. Barucq, and **D. Pardo**, *Derivation and validation of asymptotic models for the electric potential accross a highly conductive casing*, "V-MAD6", Valparaiso, Chile, Jan 2016. (invited)
200. A. Erdozain, V. Peron, H. Barucq, and **D. Pardo**, *Derivation and validation of impedance transmission conditions for the electric potential accross a highly conductive casing*, "WONAPDE 2016", Concepcion, Chile, Jan 2016. (invited)
201. S. Bakr, and **D. Pardo**, *Fast inversion of logging-while-drilling resistivity measurements acquired in multiple wells*, "Bergen Workshop on Computational and Applied Mathematics", Bergen, Norway, Jan 2016. (invited)
202. S. Bakr, and **D. Pardo**, *Fast inversion of logging-while-drilling resistivity measurements acquired in multiple wells*, "Numerical Resolution of Inverse Problems II", Bilbao, Spain, Jan 2016. (invited)
203. R. Schaefer, M. Smolka, M. Paszynski, E. Gajda-Zagorska, A. Obuchowicz, **D. Pardo**, and J. Alvarez-Aramberri, *Solving challenging, ill-posed inverse problems - mission impossible?*, "MHAE 2015", Sulejow, Poland, Sep 2015. (invited)
204. A. Galdran, J. Vazquez-Corral, **D. Pardo**, M. Bertalmio, *Enhanced Variational Image Dehazing*, "2nd Annual Catalan Meeting on Computer Vision (ACMCV2015)" Barcelona, Spain, Sep 2015. (invited)
205. A. Rodriguez-Rozas, **D. Pardo**, C. Torres-Verdín, *Development of a general framework for the rapid simulation of 2D and 2.5D borehole resistivity measurements*, "Joint Industry Research Consortium on Formation Evaluation" (Fifteenth Annual Meeting), Austin, TX, USA, Aug 2015. (invited)
206. S. Bakr, **D. Pardo**, C. Torres-Verdín, *Advances in the fast inversion of LWD resistivity measurements acquired in multiple wells*, "Joint Industry Research Consortium on Formation Evaluation" (Fifteenth Annual Meeting), Austin, TX, USA, Aug 2015. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

207. S. Bakr, and **D. Pardo**, and C. Torres-Verdin, *Fast and automatic inversion of LWD resistivity measurements for petrophysical interpretation*, "SPWLA 56th Annual Meeting", Long Beach, CA, Jul 2015. (invited)
208. I. Gomez-Revuelto, L. E. Garcia-Castillo, and **D. Pardo**, *High-Accuracy Adaptive Modeling of the Energy Distribution of a Meniscus-Shaped Cell Culture in a Petri Dish*, "Int. Conference on Computational Science (ICCS 2015)", Reykjavik, Iceland, Jun. 2015. (invited)
209. E. Gajda-Zagorska, M. Smolka, R. Schaefer, **D. Pardo**, and J. Alvarez-Aramberri, *Multi-objective Hierarchic Memetic Solver for Inverse Parametric Problems,* "Int. Conference on Computational Science (ICCS 2015)", Reykjavik, Iceland, Jun. 2015. (invited)
210. J. Alvarez-Aramberri, S. Bakr, and **D. Pardo**, *Quantities of Interest for Surface based Resistivity Geophysical Measurements*, "Int. Conference on Computational Science (ICCS 2015)", Reykjavik, Iceland, Jun. 2015. (invited)
211. A. Galdran, A. Picon, E. Garrote, and **D. Pardo**, *Pectoral Muscle Segmentation in Mammograms based on Cartoon-Texture Decomposition*, "IbPRIA 2015", Santiago de Compostela, Spain, Jun. 2015. (invited)
212. J. Alvarez-Aramberri, **D. Pardo**, and H. Barucq, *Secondary Field Formulation for the Inversion of the Magnetotelluric Problem*, "Exploring the Earth", Pau, France, May 2015. (invited)
213. V. Darrigrand, **D. Pardo**, and I. Muga, *Goal-Oriented Adaptivity using Unconventional Error Representations for Wave Propagation Problems*, "Exploring the Earth", Pau, France, May 2015. (invited)
214. S. Bakr, and **D. Pardo**, *A dimensionally adaptive method (DAM) for the simulation of 3D marine CSEM measurements*, "Exploring the Earth", Pau, France, May 2015. (invited)
215. H. Barucq, A. Erdozain, **D. Pardo**, and V. Peron, *Impedance Transmission Conditions for the Electric Potential across a Highly Conductive Casing*, "Exploring the Earth", Pau, France, May 2015. (invited)
216. I. Muga, S. Ossandon, and **D. Pardo**, *Fast simulation of direct current (DC) borehole resistivity measurements using model reduction*, "PANACM 2015", Buenos Aires, Argentina, Apr. 2015. (invited)
217. J. Alvarez-Aramberri, **D. Pardo**, and H. Barucq, *Dimensionally Adaptive Simulation and Inversion of Magnetotelluric Measurements*, "PANACM 2015", Buenos Aires, Argentina, Apr. 2015. (invited)
218. V. Darrigrand, **D. Pardo**, and I. Muga, *Goal-Oriented Adaptivity using Unconventional Error Representations*, "PANACM 2015", Buenos Aires, Argentina, Apr. 2015. (invited)
219. **D. Pardo**, S. Bakr, and C. Torres-Verdin, *Fast practical inversion of multi-well induction resistivity measurements*, "PANACM 2015", Buenos Aires, Argentina, Apr. 2015. (invited)
220. V. Darrigrand, **D. Pardo**, and I. Muga, *Goal-Oriented Adaptivity using Unconventional Error Representations for Wave Propagation Problems*, "Conference on Multi-scale Waveform Modeling and Inversion", KAUST, Saudi Arabia, Mar. 2015. (invited)
221. **D. Pardo**, S. Bakr, and C. Torres-Verdin, *Dimensionally adaptive methods for the simulation and inversion of electromagnetic geophysical measurements,*, plenary lecture at "RSME 2015", Granada, Spain, Feb. 2015. (invited)
222. S. Bakr, and **D. Pardo**, *3D Simulations of Marine CSEM measurements using dimensionally adaptive methods*, "ICMIS 2015", Cairo, Egypt, Feb. 2015. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

223. **D. Pardo**, S. Bakr, and C. Torres-Verdin, *Dimensionally Adaptive Methods for the Simulation and Inversion of Resistivity Geophysical Measurements*, "V-MAD 5", Valparaiso, Chile, Jan. 2015. (invited)
224. S. Bakr, and **D. Pardo**, *A Secondary Field Based Fourier Finite Element Method for the Simulation of 3D Marine CSEM Measurements*, "SEG 84th Annual Meeting", Denver, Colorado, USA, Oct. 2014. (invited)
225. A. Galdran, J. Vazquez-Corral, **D. Pardo**, and M. Bertalmio, *A Variational Framework for Single Image Dehazing*, "Fourth Color and Photometry in Computer Vision Workshop", Zurich, Switzerland, Sep. 2014. (invited)
226. **D. Pardo**, C. Torres-Verdín, *Practical Implementation of Automatic Resistivity Inversion for Petrophysical Interpretation*, "Joint Industry Research Consortium on Formation Evaluation" (Fourteenth Annual Meeting), Austin, TX, USA, Aug 2014. (invited)
227. A. Galdran, J. Vazquez-Corral, **D. Pardo**, and M. Bertalmio, *A Variational Framework for Single Image Dehazing*, "BCAM Workshop on Computational Mathematics", BCAM, Bilbao, Jul 2014. (invited)
228. J. Alvarez-Aramberri, **D. Pardo**, and H. Barucq, *Dimensionally Adaptive Inversion of the Magnetotelluric Problem*, "BCAM Workshop on Computational Mathematics", BCAM, Bilbao, Jul 2014. (invited)
229. J. Alvarez-Aramberri, **D. Pardo**, and H. Barucq, *Automatically Adapted Perfectly Matched Layers for Problems with High Contrast Materials Properties*, "Int. Conference on Computational Science (ICCS 2014)", Cairns, Australia, Jun. 2014. (invited)
230. D. Garcia, V. M. Calo, and **D. Pardo**, *K-Refinement on 1D Problems*, "Third International Workshop On Multiphysics, Multiscale, and Optimization Problems", BCAM, Bilbao, May 2014. (invited)
231. S. Bakr, **D. Pardo**, and T. Mannseth, *A Fourier Finite Element Method for the Simulation of Marine CSEM Measurements*, "Third International Workshop On Multiphysics, Multiscale, and Optimization Problems", BCAM, Bilbao, May 2014. (invited)
232. V. Darrigrand, **D. Pardo**, and I. Muga, *Goal-Oriented Adaptivity for Wave Propagation Problems using Multiple Dual Problems*, "Third International Workshop On Multiphysics, Multiscale, and Optimization Problems", BCAM, Bilbao, May 2014. (invited)
233. M. Paszynski, K. Kuznik, M. Wozniak, V. Calo, and **D. Pardo**, *Parallel Multi-Frontal Solver for Isogeometric Finite Element Methods on GPUs*, "Third International Workshop On Multiphysics, Multiscale, and Optimization Problems", BCAM, Bilbao, May 2014. (invited)
234. J. Alvarez-Aramberri, **D. Pardo**, H. Barucq, *Towards a fast adaptive multi-dimensional method for the inversion of magnetotelluric measurements*, "Third International Workshop On Multiphysics, Multiscale, and Optimization Problems", BCAM, Bilbao, May 2014. (invited)
235. **D. Pardo**, J. Alvarez-Aramberri, V. Darrigrand, S. Bakr, and C. Torres-Verdin, *Fast Inversion of Alternate Current (AC) Geophysical Measurements*, "Third International Workshop On Multiphysics, Multiscale, and Optimization Problems", BCAM, Bilbao, May 2014. (invited)
236. C. Gorria, M. Lezaun, **D. Pardo**, and E. Sainz de la Maza, *Tools for Optimizing the Decision Making on Two Industrial Processes: Chain Manufacturing and Tunnel Building*, "Third International Workshop On Multiphysics, Multiscale, and Optimization Problems", BCAM, Bilbao, May 2014. (invited)
237. **D. Pardo**, and C. Torres-Verdín *Simulation and inversion of resistivity and sonic logging measurements for the characterization of the Earth's subsurface*, "Nuevas Técnicas Numéricas para Problemas de Fluidos", Seville, Spain, Feb. 2014. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

238. A. Galdrán, **D. Pardo**, and A. Picón, *Image Restoration Techniques on Haze and Underwater Environments*, "Mathematics and Applications Days (V-MAD 4)", Valparaiso, Chile, Jan 2014. (invited)
239. M. Paszynski, M. Woznika, K. Kuznik, V. Calo, L. Dalcin, and **D. Pardo**, *Computational Costs and Memory Usage of IGA Direct Solvers for Different Architectures*, "Isogeometric Analysis Conference IGA 2014", Austin, TX, USA, Jan 2014. (invited)
240. M. Paszynski, K. Kuznik, V. Calo, and **D. Pardo**, *Graph Grammar Based Multi-Frontal Direct Solvers for Isogeometric FEM simulations on GPU's,* "APCOM and ISCM11", Singapore, Dec. 2013. (invited)
241. **D. Pardo**, I. Muga, and C. Torres-Verdín *Recent advances on the simulation and inversion of resistivity logging measurements for enhanced reservoir characterization,* "XII Jornadas de Mecanica Computacional en Chile", Santiago de Chile, Chile, Oct 2013. (invited)
242. M. Lezaun, C. Gorria, **D. Pardo**, E. Sainz de la Maza, D. Bilbao, and I. Gutierrez, *Mejora del proceso de fabricacion de cadenas de amarre*, "XXIII CEDYA", Castellon, Spain, Sep. 2013. (invited)
243. **D. Pardo**, and C. Torres-Verdin, *Fast numerical simulation and inversion of LWD resistivity logs,* "Joint Industry Research Consortium on Formation Evaluation" (Thirteenth Annual Meeting), Austin, TX, USA, Aug 2013. (invited)
244. N. Collier, L. Dalcin, **D. Pardo**, M. Pasznyski, and V. Calo, *A Performance Analysis of Isogeometric Methods*, "12th US National Congress on Computational Mechanics (USNCCM12)", Raleigh, North Carolina, USA, Jul. 2013. (invited)
245. L. Demkowicz, J. Gopalakrishnan, M. Melenk, I. Muga, and **D. Pardo**, *DPG Method for Wave Propagation Problems. A Better Understanding*, "12th US National Congress on Computational Mechanics (USNCCM12)", Raleigh, North Carolina, USA, Jul. 2013. (invited)
246. **D. Pardo**, I. Muga, and C. Torres-Verdín, *Physics-Based Model Reduction for Low-Frequency Electromagnetic Borehole Measurements*, "12th US National Congress on Computational Mechanics (USNCCM12)", Raleigh, North Carolina, USA, Jul. 2013. (invited)
247. N. Collier, L. Dalcin, **D. Pardo**, M. Paszynski and V. M. Calo, *A Computational Cost Analysis of Isogeometric Analysis*, "The Mathematics of Finite Elements and Applications (MAFELAP13)", Brunel, UK, Jun. 2013. (invited)
248. L. Demkowicz, J. Gopalakrishnan, M. Melenk, I. Muga, and **D. Pardo**, *DPG method for wave propagation problems, a better understanding*, "The Mathematics of Finite Elements and Applications (MAFELAP13)", Brunel, UK, Jun. 2013. (invited)
249. I. Gómez-Revuelto, L.E. García-Castillo, and **D. Pardo**, *High-Accuracy Adaptive Simulations of a Petri Dish Exposed to Electromagnetic Radiation*, "Int. Conference on Computational Science (ICCS 2013)", Barcelona, Spain, Jun. 2013. (invited)
250. J. Alvarez-Aramberri, **D. Pardo**, and H. Barucq, *Inversion of Magnetotelluric Measurements using Multigoal Oriented hp-Adaptivity*, "Int. Conference on Computational Science (ICCS 2013)", Barcelona, Spain, Jun. 2013. (invited)
251. E. Gajda-Zagorska, R. Schaefer, M. Smolka, M. Paszynski, and **D. Pardo**, *Inversion of Resistivity Logging Measurements Using a Hierarchic Genetic Strategy*, "ECCOMAS Int. Conference on Inverse Problems in Mechanics of Structure and Materials (IPM 2013)", Rzeszow-Baranow Sandomierski, Poland, Apr. 2013. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

252. R. Schaefer, M. Smolka, E. Gajda-Zagorska, M. Paszynski, and **D. Pardo**, *Solving Inverse Problems Using Computing Agents: An Attempt to a Dedicated Hierarchic Memetic Strategy*, "ECCOMAS Int. Conference on Inverse Problems in Mechanics of Structure and Materials (IPM 2013)", Rzeszow-Baranow Sandomierski, Poland, Apr. 2013. (invited)
253. **D. Pardo**, C. Torres-Verdin, and I. Muga, *Recent Advances on the Simulation and Inversion of Resistivity Logging Measurements for Enhanced Reservoir Characterization*, "WONAPDE 2013", Concepción, Chile, Jan 2013. (invited)
254. **D. Pardo**, C. Torres-Verdin, *Hydrofracture diagnosis in open-hole and steel-cased wells using borehole resistivity measurements*, "Society of Exploration Geophysicists (SEG) Annual Meeting", Las Vegas, Nevada, USA, Nov 2012. (invited)
255. I. Muga, P. Matuszyk, C. Torres-Verdin, and **D. Pardo**, *Semi-analytical Techniques for the Simulations of Borehole-Eccentered Sonic Logging Measurements*, "XI Congress of Computational Mechanics", Valparaiso, Chile, Oct 2012. (invited)
256. V. M. Calo, **D. Pardo**, L. A. Dalcin, M. Paszysnki, N. O. Collier, *Solver performance for higher-continous basis*, "21st International Conference on Domain Decomposition Methods (DD21)", Rennes, France, Jun 2012. (invited)
257. V. M. Calo, N. O. Collier, L. A. Dalcin, L. Gao, **D. Pardo**, M. Paszysnki, *A framework for Isogeometric Analysys of non-linear problems*, "TERATEC Forum 2012" (European pole of competence in high performance simulation), Paris, France, Jun 2012. (invited)
258. E. Gajda-Zagorska, M. Paszynski, R. Shaefer, **D. Pardo**, V. M. Calo, *hp-HGS strategy for inverse 3D DC resistivity logging measurement simulations*, "International Conference on Computational Science" (ICCS2012), Omaha, Nebraska, USA, Jun 2012. (invited)
259. J. Alvarez-Aramberri, **D. Pardo**, M. Paszysnki, N. Collier, L. Dalcin, V. M. Calo, *On Round-off Error for Adaptive Finite Element Methods*, "International Conference on Computational Science" (ICCS2012), Omaha, Nebraska, USA, Jun 2012. (invited)
260. I. Gomez-Revuelto, L. E. Garcia-Castillo, S. Llorente-Romano, **D. Pardo**, *3D hp-Adaptive Finite Element Simulations of a Magic-T Electromagnetic Waveguide Structure*, "International Conference on Computational Science" (ICCS2012), Omaha, Nebraska, USA, Jun 2012. (invited)
261. A. Paszynska, M. Paszynski, A. Szymczak, **D. Pardo**, *Detecting deadlock with Petri nets for the self-adaptive hp finite element method simulations of the 3D DC borehole resistivity measurements*, "International Conference on Computational Science" (ICCS2012), Omaha, Nebraska, USA, Jun 2012. (invited)
262. I. Gomez-Revuelto, L. E. Garcia-Castillo, S. Llorente-Romano, **D. Pardo**, *A Three-Dimensional Self-Adaptive hp Finite Element Method for the Characterization of Waveguide Discontinuities*, "FEM2012 Conference", Estes Park, Colorado, USA, Jun 2012. (invited)
263. **D. Pardo** and C. Torres-Verdin, *Diagnosis of Hydrofractures with Borehole Resistivity Measurements*, "Workshop INRIA-TOTAL", Pau, France, Apr 2012. (invited)
264. I. Muga, C. Torres-Verdin, P. Matuszyk, and **D. Pardo**, *Semi-analytical response of acoustic logging measurements due to multipole eccentered excitations,* "X Jornadas de Mecanica Computacional en Chile", Santiago de Chile, Chile, Oct 2011. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

265. **D. Pardo**, P. Matuszyk, and C. Torres-Verdin, *A Fourier hp-finite element method with oil-industry applications,* "XXII CEDYA, XII CMA", Palma de Mallorca, Spain, Sep 2011. (invited)
266. **D. Pardo**, P. Matuszyk, and C. Torres-Verdin, *3D simulations of sonic and resistivity borehole logging measurements using a Fourier hp-finite element method,* "Congreso de jovenes investigadores RSME", Soria, Spain, Sep 2011. (invited)
267. **D. Pardo**, and C. Torres-Verdin, *Sensitivity study to quantify hydrofractures with borehole resistivity measurements,* "Joint Industry Research Consortium on Formation Evaluation" (Eleventh Annual Meeting), Austin, TX, USA, Aug 2011. (invited)
268. N. Collier, **D. Pardo**, L. Dalcin, M. Paszynski and V. M. Calo, *The cost of continuity: a study of the performance of isogeometric finite elements using direct solvers,* "US National Congress on Computational Mechanics (USNCCM11)", Minneapolis, MN, USA, Jul 2011. (invited)
269. L. E. Garcia-Castillo, I. Gomez-Revuelto, **D. Pardo**, J. Kurtz, and M. Salazar-Palma, *Automatic hp-adaptivity for three-dimensional electromagnetic problems. Applications to waveguide problems*, "High Order Finite Elements and Isogeometric Methods" (HOFEIM2011), poster presentation, Krakow, Poland, Jun 2011.
270. A. Galdran, **D. Pardo**, A. Picon, *Mathematical image segmentation. Variational and level set techniques*, "RSME Conference on Transfer and Industrial Mathematics" (RSME2011), Santiago de Compostela, Spain, Jun 2011. (invited)
271. V. M. Calo, N. O. Collier, L. Dalcin, H. Gomez, M. Knepley, S. Nunes, **D. Pardo**, M. Paszynski, and K. V. Peinemann, *A framework for isogeometric analysis of non-linear problems*, "High Order Finite Elements and Isogeometric Methods" (HOFEIM2011), Krakow, Poland, Jun 2011. (invited)
272. **D. Pardo**, P. Matuszyk, C. Torres-Verdin, A. Mora, and V.M. Calo, *Solving Engineering Problems Using High-Order Finite Element Methods*, "Second International Workshop on Multiphysics, Multiscale, and Optimization Problems", Bilbao, Spain, Jun 2011. (invited)
273. **D. Pardo**, N. O. Collier, M. Paszynski, L. Dalcin, and V. M. Calo, *Direct Multi-Frontal Solvers for Higher-Order Galerkin Methods*, "High Order Finite Elements and Isogeometric Methods" (HOFEIM2011), Krakow, Poland, Jun 2011. (invited)
274. **D. Pardo**, P. Matuszyk, I. Muga, C. Torres-Verdin, A. Mora, and V. M. Calo, *Simuation of Sonic Logging Measurements Acquired with Borehole Eccentered Tools Using a Fourier hp Finite Element Method*, "Maths and Earth 2011", Zaragoza, Spain, Jun 2011. (invited)
275. **D. Pardo**, P. Matuszyk, I. Muga, C. Torres-Verdin, A. Mora, V. M. Calo, and L. Demkowicz, *Simuation of Acoustic Logging Measurements Acquired with Borehole Eccentered Tools Using a Fourier hp-Finite Element Method*, "Coupled Problems 2011", Kos, Greece, Jun 2011. (invited)
276. V. M. Calo, N. O. Collier, **D. Pardo**, M. Paszysnki, *Computational complexity and memory usage for multi-frontal direct solvers used in p finite element analysis*, "International Conference on Computational Science" (ICCS2011), Singapore, Jun 2011. (invited)
277. A. Szymczak, A. Paszynska, M. Paszynski, **D. Pardo**, *Anisotropic 2D mesh adaptation in hp-adaptive FEM*, "International Conference on Computational Science" (ICCS2011), Singapore, Jun 2011. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

278. M. Paszynski, **D. Pardo**, A. Paszynska, L. Demkowicz, *Out-of-core multi-frontal solver for multi-physics hp adaptive problems*, "International Conference on Computational Science" (ICCS2011), Singapore, Jun 2011. (invited)
279. V. M. Calo, **D. Pardo**, M. Paszynski, *Goal-Oriented Self-Adaptive hp Finite Element Simulation of 3D DC Borehole Resistivity Simulations*, "International Conference on Computational Science" (ICCS2011), Singapore, Jun 2011. (invited)
280. V. M. Calo, L. Demkowicz, J. Gopalakrishnan, **D. Pardo**, I. Muga, and J. Zitelli, *Wave propagation in very large domains*, "IAMCS Annual Symposium", College Station, TX, May 2011. (invited)
281. V. M. Calo, N. O. Collier, **D. Pardo**, and M. Paszynski, *The cost of continuity*, "Finite Element Rodeo", College Station, TX, Feb 2011. (invited)
282. V. M. Calo, L. Demkowicz, J. Gopalakrishnan, **D. Pardo**, I. Muga, and J. Zitelli, *Towards wave propagation without numerical dispersion*, "CSIM Annual Symposium", Houston, TX, Jan 2011. (invited)
283. J. Zitelli, I. Muga, L. Demkowicz, J. Gopalakrishnan, **D. Pardo**, and V. M. Calo, *A class of discontinuous Petrov-Galerkin methods: the optimal test norm and time-harmonic wave propagation*, "Quinto Encuentro de Analisis Numerico de Ecuaciones Diferenciales Parciales", Santiago de Chile, Dec 2010. (invited)
284. **D. Pardo**, D. Lasa, P. Matuszyk, and C. Torres-Verdin, *Simulations of Acoustic and Electromagnetic Geophysical Measurements Using a Fourier hp-Adaptive Finite Element Method*, "Workshop INRIA-TOTAL", Pau, France, Dec 2010. (invited)
285. I. Gomez-Revuelto, **D. Pardo**, L. E. Garcia-Castillo, J. Kurtz, *Calculo de Dosimetria Mediante Elementos Finitos con Adaptabilidad Automatica hp en Tres Dimensiones*, "Proceedings of XXV Symposium NURSI" Bilbao, Spain, Sep 2010. (invited)
286. **D. Pardo**, P. Matuszyk, A. Mora, V. M. Calo, I. Muga, and C. Torres-Verdin, *Simulation of Acoustic Logging Measurements with Borehole-Eccentered Tools using a hp-Fourier Finite Element Method.*, "Industry Research Consortium on Formation Evaluation" (Tenth Annual Meeting), Austin, TX, USA, Aug 2010. (invited)
287. M. Paszynski, P. Gurgul, M. Sieniek, and **D. Pardo**, *Unified Modeling Language Description of the Object-Oriented Multi-Scale Adaptive Finite Element Method for Step and Flash Imprint Lithography*, "9th World Congress on Computational Mechanics", Sydney, Australia, Jul 2010. (invited)
288. A. G. Saint-Guirons, M. Grigoroscuta, I. Gomez-Revuelto, **D. Pardo**, *Recent Efforts to Efficiently Solve Wave Propagation Problems,* "First International Workshop on Multiphysics, Multiscale, and Optimization Problems", Bilbao, Spain, Jun 2010. (invited)
289. **D. Pardo**, I. Gomez-Revuelto, *hp-Adaptive Finite Elements and Multi-Target Goal-Oriented Adaptivity,* "First International Workshop on Multiphysics, Multiscale, and Optimization Problems", Bilbao, Spain, Jun 2010. (invited)
290. K. Centarowicz, M. Paszynski, **D. Pardo**, T. Bosse, H. La Poutre, *Agent-Based Computing, Adaptive Algorithms and Bio-Computing,* "International Conference on Computational Science (ICCS2010)", Amsterdam, Netherlands, May 2010. (invited)
291. M. Paszynski, **D. Pardo**, A. Paszynska *Parallel Multi-Frontal Solver for Multi-Physics p-Adaptive Problems,* "International Conference on Computational Science (ICCS2010)", Amsterdam, Netherlands, May 2010. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

292. **D. Pardo**, *A Multi-Goal Oriented Adaptivity for hp-Finite Element Methods,* "International Conference on Computational Science (ICCS2010)", Amsterdam, Netherlands, May 2010. (invited)
293. **D. Pardo**, *Multi-Target Oriented Adaptivity,* "IV European Conference on Computational Mechanics (ECCM2010)", Paris, France, May 2010. (invited)
294. **D. Pardo**, M. J. Nam, P. Matuszyk, C. Torres-Verdín, *Inverse Problems in the Oil Industry,* "Fifth International Congress on Inverse Problems, Control, and Shape Optimization", Cartagena, Spain, Apr 2010. (invited)
295. M. J. Nam, S. Hwang, **D. Pardo**, K. G. Park, C. Lee, C. Torres-Verdin, *Simulation of eccentricity effects on short and normal logging measurements using a self-adaptive hp finite element method*, "9th SEGJ International Symposium", Sapporo, Japan, Oct. 2010. (invited)
296. **D. Pardo**, P. Matuszyk, M. J. Nam, C. Torres-Verdin, *A hp-Finite Element Method Applied to the Simulation of Electromagnetics and Acoustic/Elastic Borehole Logging Measurements*, "Partial Differential Equations, Optimal Design, and Numerics", Benasque, Spain, Sep. 2009. (invited)
297. P. Matuszyk, L. Demowicz, **D. Pardo**, J. Ma, C. Torres-Verdin, *2D Finite Element Simulation of Sonic Measurements Acquired in the Presence of a Tool Mandrel,* "Joint Industry Research Consortium on Formation Evaluation" (Ninth Annual Meeting), Austin, TX, USA, Aug 2009. (invited)
298. M. J. Nam, **D. Pardo**, C. Torres-Verdin, *Simulation of Tri-Axial Induction Measurements in the Presence of Tool Eccentricity Using a Fourier Series Expansion in a New Sytem of Coordinates and a Self-Adaptive hp-Finite Element Method,* "Industry Research Consortium on Formation Evaluation" (Ninth Annual Meeting), Austin, TX, USA, Aug 2009. (invited)
299. **D. Pardo**, M. J. Nam, C. Torres-Verdón, I. Garay, *Desarrollo de un Método de Elementos Finitos para Realizar Simulaciones Multifísicas de Gran Precisión,* "First Joint Congress of RSME-SMM", Oaxaca, México, Jul 2009. (invited)
300. **D. Pardo**, M. J. Nam, C. Torres-Verdín, V. Calo, *Simulación de Herramientas de Prospección Petrolífera Basadas en el Electromagnetismo Utilizando un Método de Elementos Finitos,* "First Joint Congress of RSME-SMM", Oaxaca, México, Jul 2009. (invited)
301. **D. Pardo**, M. J. Nam, C. Torres-Verdín, V. M. Calo, *A Fourier-Finite-Element Method in a Non-Orthogoal System of Coordinates for the Simulation of 3D Resistivity Logging Measurements Acquired in Deviated Wells*, "U.S. National Congress on Computational Mechanics 10", Columbus, OH, USA, Jul 2009. (invited)
302. **D. Pardo**, M. J. Nam, C. Torres-Verdín, J. Kurtz, *Parallel Goal-Oriented Adaptivity for a Fourier Finite Element Method. Applications to the Oil-Industry,* "Mathematics of Finite Elements and its Applications (MAFELAP 2009)", Brunel, UK, Jun 2009. (invited)
303. **D. Pardo**, M. J. Nam, C. Torres-Verdín, *A hp Fourier-Finite-Element Framework with Multiphysics Applications,* "International Conference on Adaptive Modeling and Simulations (ADMOS 2009)", Bruxelles, Belgium, May 2009. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

304. M. J. Nam, S. Hwang, **D. Pardo**, K. G. Park, C. Lee, C. Torres-Verdín, *Simulation of Short and Normal Logging Measurements in the Presence of Tool Eccentricity Using Fourier Series Expansion in a New System of Coordinates and a Self-Adaptive hp-Finite Element Method,* "Congress of the Korean Society for Geosystems Engineering", Seoul, Korea, May 2009. (invited)

305. M. J. Nam, **D. Pardo**, C. Torres-Verdín, *Goal-Oriented High-Order Self-Adaptive hp-Finite Element Simulation of Dual-Laterolog Measurements,* "Congress of the Korean Society for Geosystems Engineering", Seoul, Korea, May 2009. (invited)

306. M. J. Nam, **D. Pardo**, C. Torres-Verdín, *Self-Adaptive hp-Finite Elemetn Simulation of Multi-Component Induction Measurements,* "Conference of Korean Society of Economic and Environmental Geology", Busan, Korea, Apr 2009. (invited)

307. M. Paszynski, **D. Pardo**, C. Torres-Verdín, *Performance of a Multi-Frontal Parallel Direct Solver for hp Finite Element Method,* "International Conference on Advances in Computer Science and Engineering", Phuket, Thailand, Mar 2009. (invited)

308. **D. Pardo**, C. Torres-Verdin, L. E. Garcia-Castillo, M. Paszynski, M. J. Nam, *An hp Fourier Finite Element (FFE) Framework with Electromagnetics and Multiphysics Applications,* "VI Iberian Meeting on Computational Electromagnetism", Chiclana, Cádiz, Spain, Oct 2008. (invited)

309. M. J. Nam, **D. Pardo**, C. Torres-Verdin, V. M. Calo, *Self-Adaptive hp Finite Element Simulation of Multi-Component Induction Measurements Acquired in Dipping, Invaded, and Anisotropic Formations,* "SiG Resistivity Meeting", Houston, TX, Oct 2008. (invited)

310. **D. Pardo**, C. Torres-Verdin, M. J. Nam, V. M. Calo, *Multi-Physics Inversion of Borehole Resistivity Measurements. Part I: Algorithms, Methods, and Library Design,* "Joint Industry Research Consortium on Formation Evaluation" (Eighth Annual Meeting), Austin, TX, Aug 2008. (invited)

311. **D. Pardo**, C. Torres-Verdin, M. J. Nam, *Software Update on Finite Element Simulation of DC/AC Resistivity Measurements,* "Joint Industry Research Consortium on Formation Evaluation" (Eighth Annual Meeting), Austin, TX, Aug 2008. (invited)

312. **D. Pardo**, C. Torres-Verdin, M. J. Nam, V. M. Calo, P. J. Matuszyk, *Software Update on Multi-Physics Simulations and Inversion of Borehole Measurements,* "Joint Industry Research Consortium on Formation Evaluation" (Eighth Annual Meeting), Austin, TX, Aug 2008. (invited)

313. M. J. Nam, **D. Pardo**, C. Torres-Verdin, *Self-Adaptive hp Finite-Element Simulation of Multi-Component Induction Measurements Acquired in Dipping, Invaded, and Anisotropic Formations,* "Joint Industry Research Consortium on Formation Evaluation" (Eighth Annual Meeting), Austin, TX, Aug 2008. (invited)

314. M. J. Nam, **D. Pardo**, C. Torres-Verdin, *Self-Adaptive hp Finite-Element Simulation of AC/DC Dual Laterolog Measurements in Dipping, Invaded, and Anistropic Formations,* "Joint Industry Research Consortium on Formation Evaluation" (Eighth Annual Meeting), Austin, TX, Aug 2008. (invited)

315. **D. Pardo**, M. J. Nam, C. Torres-Verdin, M. Paszynski, *Design of Frequency-Domain EM Finite Elements for Geophysical Applications,* "PIERS 2008", Cambridge, MA, Jul 2008. (invited)

316. **D. Pardo**, M. J. Nam, C. Torres-Verdin, M. Paszynski, *A Fourier-Fintie Element Formulation and an Iterative Solver for the Simulation of 3D Induction Measurements Acquired in Deviated Wells,* "PIERS 2008", Cambridge, MA, Jul 2008. (invited)

317. **D. Pardo**, M. J. Nam, C. Torres-Verdin, L. Demkowicz, *New Developments for the Simulation of Galvanic and Induction Logging Measurements in Deviated Wells with Possibly Eccentered Tools,* "SiG Resistivity Meeting", Houston, TX, Jun 2008. (invited)

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

318. M. Paszynski, **D. Pardo**, C. Torres-Verdin, *Parallel Goal-Oriented Fully Automatic hp Adaptive Finite Element Method Algorithms with Shared Data Structures,* "Advances in Structural Engineering and Mechanics", Jeju, Korea, May 2008. (invited)
319. M. Paszynski, **D. Pardo**, C. Torres-Verdin, *Efficient Sequential and Parallel Solvers for the hp-Finite Element Method,* "APCOM07 in conjuction with EPMESC XI", Kyoto, Japan, Dec 2007.
320. **D. Pardo**, M.J. Nam, C. Torres-Verdín, M. Paszynski, V.M. Calo, *Numerical Simulation of 3D EM Borehole Measurements Using an hp-Adaptive Goal-Oriented Finite Element Formulation,* "SEG annual meeting", San Antonio, TX, Sep 2007.
321. **D. Pardo**, C. Torres-Verdin, M. J. Nam, M. Paszynski, V. M. Calo, *Self-Adaptive hp-Finite Element Simulations of Multi-Component Measurements Acquired in Dipping, Invaded and Anisotropic Formations,* "Joint Industry Research Consortium on Formation Evaluation" (Seventh Annual Meeting), Austin, TX, Aug 2007. (invited)
322. M. J. Nam, **D. Pardo**, C. Torres-Verdin, *Self-Adaptive hp-Finite Element Simulation of Dual-Laterolog Measurements in Dipping, Invaded, and Anisotropic Formations,* "Joint Industry Research Consortium on Formation Evaluation" (Seventh Annual Meeting), Austin, TX, Aug 2007. (invited)
323. M. Paszynski, **D. Pardo**, C. Torres-Verdin, *Fast Numerical Simulation of 3D DC/AC Borehole Resistivity Measurements with a Parallel hp-Adaptive and Goal-Oriented Finite Element Method,* "Joint Industry Research Consortium on Formation Evaluation" (Seventh Annual Meeting), Austin, TX, Aug 2007. (invited)
324. **D. Pardo**, C. Torres-Verdin, M.J. Nam, M. Paszynski, *Software Update on Finite Element Simulation of DC/AC Borehole Resistivity Measurements,* "Joint Industry Research Consortium on Formation Evaluation" (Seventh Annual Meeting), Austin, TX, Aug 2007. (invited)
325. **D. Pardo**, R. Abdollah-Pour, Ch. Michler, M.J. Nam, M. Paszynski, L. Demkowicz, C. Torres-Verdin, *Software Update on Multi-Physics Simulation and Inversion of Borehole Measurements. Work in Progress,* "Joint Industry Research Consortium on Formation Evaluation" (Seventh Annual Meeting), Austin, TX, Aug 2007. (invited)
326. **D. Pardo**, C. Torres-Verdin, M. J. Nam, V. M. Calo, M. Paszynski, *Numerical Simulations of 3D Borehole Resistivity Measurements Using a Fourier Series Expansion in a Non-Orthogonal System of Coordinates,* "U.S. National Congress on Computational Mechanics IX", San Francisco, CA, USA, Jul 2007.
327. M. Paszynski, **D. Pardo**, C. Torres-Verdin, *A Nested Dissection Parallel Direct Solver for Simulations of 3D DC/AC Resistivity Measurements*, "U.S. National Congress on Computational Mechanics IX", San Francisco, CA, USA, Jul 2007.
328. C. Michler, L. Demkowicz, **D. Pardo**, C. Torres-Verdin, *Simulations of Borehole Acoustic Measurements with Adaptive Finite Elements,* "U.S. National Congress on Computational Mechanics IX", San Francisco, CA, USA, Jul 2007.
329. L.E. Garcia-Castillo, **D. Pardo**, L. Demkowicz, *Fully Automatic hp-Adaptivity for Electromagnetics. Application to the Analysis of H-plane and E-plane Rectangular Waveguide Discontinuities,* "IEEE MTT-S International Microwave Symposium", Honolulu, Hawaii, Jun 2007.

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

330. C. Michler, L. Demkowicz, C. Torres-Verdin, **D. Pardo**, J. Kurtz, *Efficient Simulation of Borehole Acoustic Measurements Using Adaptive Finite Elements,* "Finite Element Rodeo", Houston, TX, USA Mar 2007. (invited)
331. **D. Pardo**, L. Demkowicz, C. Torres-Verdín, M. Paszynski, *A Three-Dimensional Self-Adaptive, Goal-Oriented hp-Finite Element Method with a Multigrid Solver. Applications to Electromagnetics,* "SIAM Conference on Computational Science and Engineering", Costa Mesa, CA, USA, Feb 2007.
332. M. Paszynski, **D. Pardo**, L. Demkowicz, C. Torres-Verdín, *Conversion of Meshes Between 2D and 3D hp Adaptive Parallel Finite Element Method Codes,* "XIV Conference on Computer Methods in Material Science (KomPlasTech)", 2007, Zakopane, Poland, Jan 2007.
333. **D. Pardo**, L. Demkowicz, C. Torres-Verdín, *A Two-Grid Goal-Oriented Iterative Solver for hp-FE Discretizations with Possibly Elongated Elements of Elliptic Problems,* "Eight IMACS International Symposium on Iterative Methods in Scientific Computation", College Station, TX, USA, Nov 2006.
334. M. Paszynski, **D. Pardo**, L. Demkowicz, C. Torres-Verdín, *Parallel hp-Finite Element Simulations of 3D Resistivity Logging Instruments*, "13th ISPE International Conference on Concurrent Engineering", Antibes, France, Sep 2006.
335. **D. Pardo**, M. Paszynski, C. Torres-Verdín, L. Demkowicz, *Numerical Simulation of 3D DC Borehole Resistivity Measurements Using an hp-Adaptive Goal-Oriented Finite Element Formulation,* "2006 Joint Industry Research Consortium on Formation Evaluation (Sixth Annual Meeting)", Austin, TX, Aug 2006. (invited)
336. M. Paszynski, **D. Pardo**, C. Torres-Verdín, L. Demkowicz, *Parallel Numerical Simulation of 3D DC Borehole Resistivity Measurements Using an hp-Adaptive Goal-Oriented Finite Element Formulation,* "2006 Joint Industry Research Consortium on Formation Evaluation (Sixth Annual Meeting)", Austin, TX, Aug 2006. (invited)
337. **D. Pardo**, *2D Simulations of Resistivity Logging Measurements (DEMO),* "2006 Joint Industry Research Consortium on Formation Evaluation (Sixth Annual Meeting)", Austin, TX, Aug 2006. (invited)
338. **D. Pardo**, C. Torres-Verdín, M. Paszynski, C. Michler, L. Demkowicz, *A 2D and 3D hp-Finite Element Method for Simulation of Through Casing Resistivity Logging Instruments (Poster Presentation),* "2006 IEEE Antennas and Propagation Society International Symposium and URSI National Radio Science Meeting", Albuquerque, NM, Jul 2006.
339. **D. Pardo**, C. Torres-Verdín, L. Demkowicz, *High Accuracy Simulations of 2D and 3D Resistivity Logging Instruments Using a Self-Adaptive Goal-Oriented hp-FEM,* "The Mathematics of Finite Elements and its Applications (MAFELAP) 2006", Brunel University, Uxbridge, United Kingdom, Jun 2006. (invited)
340. I. Gómez-Revuelto, L. E. García-Castillo, **D. Pardo**, L. Demkowicz, *A Two-Dimensional Self-Adaptive hp Finite Element Method for the Analysis of Open Region Problems in Electromagnetics,* "12th Biennial IEEE Conference on Electromagnetic Field Computation (IEEE CEFC2006)", Miami, FL, May 2006.
341. **D. Pardo**, C. Torres-Verdín, and L. Demkowicz, *A Self-Adaptive Goal-Oriented hp Finite Element Method for Simulations of a Resistivity Logging Instruments in Cased Wells,* "ADMOS 2005: International Conference on Adaptive Modeling and Simulation", Barcelona, Spain, Sep 2005.

MAIN PRESENTATIONS (*continued*)

A) CONGRESS OR WORKSHOP (*continued*)

342. **D. Pardo**, C. Torres-Verdín, L. Demkowicz, and L. Tabarovsky *Self-Adaptive Goal-Oriented hp-Finite Element Simulations of Induction and Laterolog Measurements in the Presence of Steel Casing,* "2005 Joint Industry Research Consortium on Formation Evaluation (Fifth Annual Meeting)", Austin, TX, Aug 2005. (invited)

343. **D. Pardo**, M. Paszynski, L. Demkowicz, and C. Torres-Verdín, *Self-Adaptive Goal-Oriented hp-Finite Element Simulations of: (1) Axisymmetric Borehole Acoustics, and (2) 3D Resistivity Logging Instruments,* "2005 Joint Industry Research Consortium on Formation Evaluation (Fifth Annual Meeting)", Austin, TX, Aug 2005. (invited)

344. L. Demkowicz, J. Kurtz, and **D. Pardo**, *Automatic hp-Adaptivity. A Progress Report,* "Mini-Workshop: Convergence of Adaptive Algorithms", Oberwolfach, Germany, Aug 2005. (invited)

345. **D. Pardo**, L. Demkowicz, and C. Torres-Verdín, *High Accuracy Simulations of Resistivity Logging Instruments Using A Self-Adaptive Goal-Oriented hp Finite Element Method,* "2005 U.S. National Congress on Computational Mechanics", Austin, TX, Jul 2005.

346. **D. Pardo**, L. Demkowicz, and C. Torres-Verdín, *Short Course on hp-Finite Elements: A Self-Adaptive Goal-Oriented hp Finite Element Method with Electromagnetic Applications,* "2005 U.S. National Congress on Computational Mechanics", Austin, TX, Jul 2005.

347. L. Demkowicz, **D. Pardo**, J. Kurtz, and C. Torres-Verdín, *Fully Automatic hp-Adaptive Finite Element Method,* "Workshop on Multiscale Finite Element Methods", Austin, TX, May 2005. (invited)

348. **D. Pardo**, L. Demkowicz, and C. Torres-Verdín, *A Fully Automatic Goal-Oriented hp-Adaptive Finite Element Strategy for Simulations of Resistivity Logging Instruments,* "Finite Element Rodeo", Dallas, TX, Mar 2005. (invited)

349. **D. Pardo**, C. Torres-Verdín, and L. Demkowicz, *A New Fully Automatic Goal-Oriented hp-Adaptive Finite Element Strategy for Simulations of Resistivity Logging Instruments. Progress Report,* "2004 Joint Industry Research Consortium on Formation Evaluation (Fourth Annual Meeting)", Austin, TX, Aug 2004. (invited)

350. **D. Pardo**, and L. Demkowicz, *Integration of a Fully Automatic hp-Adaptive Strategy with a Two Grid Solver: Applications to Electromagnetics,* "VI Seminar in Computer Modeling and Microwave Engineering", Austin, TX, Jan 2004. (invited)

351. L. Demkowicz, and **D. Pardo**, *Fully Automatic hp-Adaptive FEM for Maxwell's Equations in Three Dimensions,* "AFOSR Electromagnetic Workshop", San Antonio, TX, Jan 2004. (invited)

352. **D. Pardo**, and L. Demkowicz, *Integration of hp-Adaptivity with a Two Grid Solver: Applications to Electromagnetics,* poster presentation. "Adaptivity in Finite Element Analysis: Models, Meshes and Polynomial Order", Bad Honeff, Germany Sep 2003. (invited)

353. **D. Pardo**, and L. Demkowicz, *Integration of hp-Adaptivity with a Two Grid Solver: Applications to Electromagnetics,* "2003 US National Congress on Computational Mechanics Workshop", Albuquerque, NM, Jul 2003.

354. L. Demkowicz, and **D. Pardo,** *Fully Automatic hp-Adaptive Simulations for Maxwell's Equations,* "AFOSR Electromagnetic Workshop", San Antonio, TX, Jan 2003. (invited)

355. **D. Pardo**, and L. Demkowicz, *A Two Grid Solver for a 2D Fully Automatic hp-Adaptive Finite Element Code,* "Finite Element Rodeo", TX, Mar 2002. (invited)

356. L. Demkowicz, and **D. Pardo**, *Adaptive hp FE Modeling For Maxwell's Equations. A progress Report,* "AFOSR Electromagnetics Workshop", San Antonio, TX, Jan 2002. (invited)

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MAIN PRESENTATIONS (*continued*)

B) PRESENTATIONS AT A UNIVERSITY

357. J. M. Taylor, S. Baharlouei, C. Uriarte, M. Bastidas, Tomas Teijeiro, and **D. Pardo**, *PINNs on steroids fighthing against integration*, "University Carlos III of Madrid", Leganes, Spain, Mar. 2025. (invited)

358. M. Bastidas, C. Uriarte, J. M. Taylor, S. Rojas, V. M. Calo, and **D. Pardo**, *Variational Physics-Informed Neural Networks Optimized with Least Squares and Adaptivity in the Test Space*, University of Santiago de Compostela, Galicia, Spain, Mar. 2024. (invited)

359. M. Bastidas, C. Uriarte, J. M. Taylor, S. Rojas, V. M. Calo, and **D. Pardo**, *Variational Physics-Informed Neural Networks Optimized with Least Squares and Adaptivity in the Test Space*, University Carlos III of Madrid, Leganes, Spain, Mar. 2024. (invited)

360. M. Bastidas, C. Uriarte, J. M. Taylor, S. Rojas, V. M. Calo, and **D. Pardo**, *Variational Physics-Informed Neural Networks Optimized with Least Squares and Adaptivity in the Test Space*, South Carolina University, USA, Feb. 2024. (invited)

MAIN PRESENTATIONS (*continued*)

B) PRESENTATIONS AT A UNIVERSITY (*continued*)

361. **D. Pardo**, M. Strugaru, J. M. Taylor, A. J. Omella, J. A. Rivera, C. Uriarte, I. Muga, and J. Munoz-Matute, *Deep Learning for Simulation and Inversion Problems*, Oden Institute at the University of Texas at Austin, Oct. 2022. (invited)
362. **D. Pardo**, *Energias Fosiles*, Dia del Cambio Climatico en la Facultad de Ciencias, UPV/EHU, Nov. 2021. (invited)
363. A. J. Omella, **D. Pardo**, J. A. Rivera, and J. M. Taylor, *A Deep Ritz method with r-adaptivity for solving partial differential equations*, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK, Nov. 2021. (invited)
364. **D. Pardo**, *From Haro to New York: A boat trip exploring the Earth's subsurface through applied mathematics*, Jakin Mina, Bilbao, Spain, Nov. 2021. (invited)
365. J. Munoz-Matute, **D. Pardo**, and L. F. Demkowicz, *Time marching DPG scheme and adaptivity for transient partial differential equations*, Pontificia Universidad Católica de Valparaiso, Chile, Oct. 2021. (invited)
366. C. Uriarte, **D. Pardo**, and A. J. Omella, *A Finite Element based Deep Learning solver for parametric PDEs*, online webinar, Pontificia Universidad Católica de Valparaiso, Mar. 2021. (invited)
367. J. A. Rivera, A. J. Omella, and **D. Pardo**, *Solving Inverse Problems using Deep Learning*, online webinar, AGH Univ. of Science and Technology, Feb. 2021. (invited)
368. C. Uriarte, A. J. Omella, and **D. Pardo**, *A Finite Element based Deep Learning solver for parametric PDEs*, online webinar, AGH Univ. of Science and Technology, Jan. 2021. (invited)
369. **D. Pardo**, *Solving inverse problems using Deep Learning*, online webinar, Univ. Autonoma de Madrid (UAM), Oct. 2020. (invited)
370. M. Shahriari, **D. Pardo**, A. Picon S. Ossandon, and C. Torres-Verdín *Rapid Inversion of Resistivity Measurements Using Deep Learning*, Pontificial Catholic University of Valparaiso, Chile, Apr. 2020. (invited)
371. **D. Pardo**, *From Haro to New York: A boat trip exploring the Earth's subsurface through applied mathematics*, Jakin Mina, Durango, Spain, Mar. 2020. (invited)
372. **D. Pardo**, J. Omella, J. A. Rivera, A. Picon, J. del Ser, C. Torres-Verdín, and M. Shahriari, *Deep Learning Based Inversion for Geosteering*, RICAM and SCCH, Linz, Austria, Feb. 2020. (invited)
373. J. Omella, R. Celorrio, and **D. Pardo**, *Discontinuous Galerkin Method Applied to Lock-in Thermography for Micro-Crack Characterization*, Pontificial Catholic University of Valparaiso, Chile, Jan. 2020. (invited)
374. **D. Pardo**, J. A. Rivera, M. Shahriari, A. Picon, C. Torres-Verdin, and J. del Ser, *Real-time Inversion of Borehole Resistivity Measurements for Geosteering Using Deep Learning*, CSIC, Spain, Oct. 2019. (invited)
375. **D. Pardo**, *Deep Learning Based Inversion with Energy Applications*, BCAM, Spain, Sep. 2019. (invited)
376. V. Darrigrand, **D. Pardo**, Th. Chaumont-Frelet, I. Gómez-Revuelto, L.E. García-Castillo, *hp-Adaptivity for Dummies*, University of Nice Sophia Antopolis, Apr. 2019. (invited)
377. V. Darrigrand, **D. Pardo**, Th. Chaumont-Frelet, I. Gómez-Revuelto, L.E. García-Castillo, *hp-Adaptivity for Dummies*, Polythecnic University of Cataluña, Spain, Feb. 2019. (invited)

MAIN PRESENTATIONS (*continued*)

B) PRESENTATIONS AT A UNIVERSITY (*continued*)

378. **D. Pardo**, M. Shahriari, A. Picón, A. Galdrán, and J. del Ser, *Rapid Inversion of Borehole Resistivity Measurements for Geosteering Using Model Reduction and Deep Learning*, "Columbia Unviersity", NY, USA, Jul. 2018. (invited)
379. J. Muñoz, V. M. Calo, **D. Pardo**, and E. Alberdi, *Adbekzio-difusio ekuazioaren errorearen adierazpena eta helburuetara orientatutako egokitzapena espazio-denboran Runge-Kutta eszilizituak erabilita*, "University of the Basque Country (UPV/EHU)", Spain, Jul. 2018. (invited)
380. J. Muñoz-Matute, **D. Pardo**, V. M. Calo, and E. Alberdi, *Goal-oriented adaptivity for the advection-diffusion equation employing explicit time integrators*, "BCAM Light Seminar", Bilbao, Spain, Jun. 2018. (invited)
381. M. Shahriari, S. Rojas, **D. Pardo**, A. Rodriguez-Rozas, S. A. Bakr, V. M. Calo, and I. Muga *A Fast 1.5D Numerical Solver for Electromagnetics*, "AGH University", Krakow, Poland, Apr. 2018. (invited)
382. J. Muñoz-Matute, **D. Pardo**, E. Alberdi, and V. M. Calo, *Space-Time Variational Formulations for Explicit-in-Time Methods*, "AGH University", Krakow, Poland, Apr. 2018. (invited)
383. M. Shahriari, S. Rojas, **D. Pardo**, A. Rodriguez-Rozas, S. A. Bakr, V. M. Calo, and I. Muga, *A Fast 1.5D Multiscale Method for Geophysical Measurements*, "Ph.D. LIGHT Seminar, BCAM", Bilbao, Spain, Apr. 2018. (invited)
384. J. Muñoz-Matute, **D. Pardo**, E. Alberdi, and V. M. Calo, *Time-domain Goal-Oriented Adaptivity employing Explicit Galerkin Time Integrators*, "University of Nottingham", U.K., Mar. 2018. (invited)
385. J. Muñoz, E. Alberdi, and **D. Pardo**, V. Darrigrand, and A. Rodriguez-Rozas, *Time-domain methods for efficiently solving challenging geophysical problems: Applications to the oil industry, mining, and earthquake propagation*, "University of the Basque Country (UPV/EHU)", Spain, Mar. 2018. (invited)
386. T. Radivojevic, E. Ahkmatskaya, **D. Pardo**, A. Rodríguez-Rozas, J. Álvarez-Aramberri, W. I. Tan Uy, H. García Martin, and T. W. H. Backman, *Hamiltonian Monte Carlo methods in practice*, "Univ. of Sussex" (Workhops on Monte Carlo and Hybrid Methods), UK, Jun. 2017. (invited)
387. **D. Pardo**, A. Rodríguez-Rozas, and J. Álvarez-Aramberri, *Some modeling and simulation challenges in petroleum engineering*, "Univ. Carlos III of Madrid", Madrid, Spain, Mar. 2017. (invited)
388. A. Erdozain, V. Peron, H. Barucq, and **D. Pardo**, *Model reduction techniques for the fast inversion of borehole resistivity measurements*, "Pontificia Universidad Catolica de Valparaiso", Chile, Nov. 2016. (invited)
389. **D. Pardo**, *A Dimensionally Adaptive Method*, "AGH University of Science and Technology", Krakow, Poland, Sep. 2016. (invited)
390. J. Muñoz, E. Alberdi, and **D. Pardo**, *Denboraren eremuan helburuetara orientatutako egokitzapena errorearen ez ohiko adierazpenak erabilita.*, "University of the Basque Country (UPV/EHU)", Spain, Jul. 2016. (invited)
391. V. Darrigrand, **D. Pardo**, I. Muga and A. Rodríguez-Rozas, *Generalised Error Representations for Goal-Oriented Adaptivity*, "Pontificia Universidad Catolica de Valparaiso", Chile, May 2016. (invited)
392. J. Álvarez-Aramberri, **D. Pardo**, and H. Barucq, *Magnetotelluric Problem: Simulation, Inversion, and Open Questions*, "University of Barcelona", Spain, Sep. 2015. (invited)
393. **D. Pardo**, S. Bakr, A. Rodríguez-Rozas, and C. Torres-Verdin, *Dimensionally adaptive methods for the simulation and inversion of electromangnetic geophysical measurements*, "Barcelona Supercomputing Center (BSC)", Spain, Sep. 2015. (invited)

MAIN PRESENTATIONS (*continued*)

B) PRESENTATIONS AT A UNIVERSITY (*continued*)

394. **D. Pardo**, S. Bakr, and C. Torres-Verdin, *Dimensional adaptive methods for the simulation and inversion of electromangnetic geophysical measurements*, "King Abdullah University of Science and Technology (KAUST)", Thuwal, Saudi Arabia, Apr. 2015. (invited)
395. V. Darrigrand, **D. Pardo**, and I. Muga, *Goal-Oriented Adaptivity using Unconventional Error Representations for Wave Propagation Problems*, "Polythecnic University of Catalunya", Barcelona, Spain, Mar. 2015. (invited)
396. S. Bakr and **D. Pardo**, *Dimensionally adaptive methods for the simulation of 3D marine CSEM measurements*, "Basque Center for Applied Mathematics (BCAM)", Bilbao, Spain, Dec. 2014. (invited)
397. **D. Pardo**, *Mathematical Modeling, Simulation, and Industrial Applications*, "University of Bordeaux", Bordeaux, France, Nov. 2014. (invited)
398. **D. Pardo**, and C. Torres-Verdin, *Fast Semi-Analytical based Inversion of Subsurface Logging-While-Drilling (LWD) Resistivity Measurements*, "Polythecnic University of Madrid (UPM)", Madrid, Spain, May 2014. (invited)
399. **D. Pardo**, and C. Torres-Verdin, *Fast Inversion of Logging-While-Drilling (LWD) Resistivity Measurements for the Characterization of Hydrocarbon-Bearing Formations*, "King Abdullah University of Science and Technology (KAUST)", Thuwal, Saudi Arabia, Mar 2014. (invited)
400. C. Gorria, M. Lezaun, **D. Pardo**, and E. Sainz de la Maza *Optimising the manufacture of offshore mooring chains in Vicinay Cadenas,* "University of the Basque Country (UPV/EHU)", Leioa, Mar 2014. (invited)
401. A. Galdrán, **D. Pardo**, and A. Picón, *Restoring images damaged by fog and underwater scenes,* "Pontificia Universidad Católica de Valparaiso", Chile, Jan. 2014. (invited)
402. S. Bakr, **D. Pardo**, and T. Mannseth, *3D Simulations of Marine CSEM measurements using a Fourier Finite Element method,* "Universidad Federico Santa Maria", Valparaiso, Chile, Jan. 2014. (invited)
403. J. Álvarez-Aramberri and **D. Pardo**, *Description of a forward magnetotelluric problem,* "AGH University of Science and Technology", Krakow, Poland, Jan. 2014. (invited)
404. S. Bakr, **D. Pardo**, and T. Mannseth, *Domain decomposition Fourier finite element method for the simulation of 3D marine CSEM measurements,* "Basque Center for Applied Mathematics (BCAM)", Bilbao, Spain, Nov. 2013. (invited)
405. **D. Pardo**, and C. Torres-Verdín, *Fast Inversion of Logging While Drilling (LWD) Resistivity Measurements,* "Basque Center for Applied Mathematics (BCAM)", Spain, Oct. 2013. (invited)
406. A. Galdran, **D. Pardo**, and A. Picon, *Algorithms for Distance Dependent and Underwater Image Degradation,* "Basque Center for Applied Mathematics (BCAM)", Spain, Oct. 2013. (invited)
407. **D. Pardo**, and C. Torres-Verdín, *Fast Inversion of Logging While Drilling (LWD) Resistivity Measurements for the Characterization of Hydrocarbon-Bearing Formations,* "Pontificia Universidad Católica de Valparaiso", Chile, Sep. 2013. (invited)
408. **D. Pardo**, and C. Torres-Verdín, *Simulation and Inversion of Resistivity and Sonic Logging Measurements for the Characterization of the Earth's Subsurface,* "UNICAMP", Campinas, Brazil, Sep. 2013. (invited)

MAIN PRESENTATIONS (*continued*)

B) PRESENTATIONS AT A UNIVERSITY (*continued*)

409. **D. Pardo**, and C. Torres-Verdín, *Simulation and Inversion of Resistivity and Sonic Logging Measurements for the Characterization of the Earth's Subsurface,* "Centro de Modelamiento Matemático (CMM)", Santiago, Chile, Aug. 2013. (invited)

410. S. Bakr, **D. Pardo**, and T. Mannseth, *A Fourier finite element method with application to 3D marine CSEM simulation,* "Centre for Integrated Petroleum Research (CIPR)", Norway, Mar. 2013. (invited)

411. **D. Pardo**, and C. Torres-Verdín, *Hydrofracture diagnosis in open-hole and steel-cased wells using borehole resistivity measurements,* "King Abdullah University of Sciences and Technology (KAUST)", Thuwal, Saudi Arabia, Feb. 2013. (invited)

412. **D. Pardo**, *Aplicaciones de las Ecuaciones Diferenciales,* "Pontificia Universidad Católica de Valparaíso", Chile, Jan 2013. (invited)

413. **D. Pardo**, and I. Muga, *DPG Finite Element Approximations,* "Technical University Federico Santa Maria", Chile, Jan 2013. (invited)

414. **D. Pardo**, *El Petróleo y las Matemáticas,* "Universidad de Valparaíso", Chile, Jan 2013. (invited)

415. **D. Pardo**, P. Matuszyk, I. Muga, and C. Torres-Verdín, *Simulación de Herramientas de Prospección Petrolífera Electromagnéticas y Acústicas Utilizando un Método de Elementos Finitos,* "Pontificia Universidad Católica de Valparaíso", Chile, Sep 2012. (invited)

416. **D. Pardo**, *Elementos Finitos y sus Aplicaciones,* "Pontificia Universidad Católica de Valparaíso", Chile, Sep 2012. (invited)

417. **D. Pardo**, P. Matuszyk, and C. Torres-Verdin, *A Fourier hp-finite element method with oil-industry applications,* "IMATI, University of Pavia", Italy, Sep 2011. (invited)

418. N. O. Collier, **D. Pardo**, M. Paszysnki, and V. M. Calo, *The cost of continuity: a study of the performance of isogeometric finite elements using direct solvers*, "KAUST WEP poster contest", (won second prize), Saudi Arabia, May 2011. (invited)

419. **D. Pardo**, N. Collier, M. Paszynski, V. M. Calo, *Direct Solvers of Linear Equations for Isogeometric Analysis*, "University of the Basque Country" Bilbao, Spain, Mar 2011. (invited)

420. **D. Pardo**, *hp Finite Element Methods and Applications*, "University of the Basque Country" Bilbao, Spain, Mar 2011. (invited)

421. **D. Pardo**, L. Demowicz, J. Gopalakrishnan, V.M. Calo, J. Zitelli, *The Discontinuous Petrov-Galerkin Method for Wave Propagation Problems. Part I: Introduction and Preliminary Results*, "University of the Basque Country" Bilbao, Spain, Jan 2011. (invited)

422. L. Demkowicz, J. Zitelli, I. Muga, J. Gopalakrishnan, **D. Pardo**, and V. M. Calo, *Application of DPG Method to Wave Propagation*, "University of Minnesota", USA, Nov 2010. (invited)

423. J. Zitelli, I. Muga, L. Demkowicz, J. Gopalakrishnan, **D. Pardo**, and V. M. Calo, *Application of the DPG Method to Wave Propagation*, Poster Presentation, "University of Texas at Austin", TX, USA, Nov 2010. (invited)

424. **D. Pardo**, D. Lasa, P. Matuszyk, and C. Torres-Verdin, *Simulations of Sonic and Electromagnetic Geophysical Measurements Using a Fourier hp-Adaptive Finite Element Method*, "University of Coruna", Spain, Nov 2010. (invited)

MAIN PRESENTATIONS (*continued*)

B) PRESENTATIONS AT A UNIVERSITY (*continued*)

425. **D. Pardo**, P. Matuszyk, I. Muga, C. Torres-Verdin, A. Mora, and V. M. Calo, *Simulation of Sonic Logging Measurements Using a Fourier hp-Finite Element Method*, "KAUST University", Saudi Arabia, Oct 2010. (invited)

426. **D. Pardo**, P. Matuszyk, M.J. Nam, C. Torres-Verdin, V. M. Calo, *Simulation of Logging Measurements using hp-Finite Elements,* "KAUST University", Saudi Arabia, Jan 2010. (invited)

427. **D. Pardo**, M. Paszynski, P. Matuszyk, M.J. Nam, C. Torres-Verdín, *Simulation of Sonic and Resistivity Logging Measurements Using hp-Finite Elements* "University of Barcelona", Spain, Dec 2009. (invited)

428. **D. Pardo**, M. Paszynski, C. Torres-Verdin, *Computational Challenges Associated to the Simulation of Sonic and Resistivity Logging Measurements Using hp-Finite Elements,* "AGH University of Science and Technology", Krakow, Poland, Oct. 2010. (invited)

429. M. Paszynski, **D. Pardo**, L. Demkowicz, V.Calo, *Parallel direct solvers for adaptive Finite Element and Finite Difference Method,* "Basque Center for Applied Mathematics", Bilbao, Spain, Sep. 2009. (invited)

430. M. Paszynski, **D. Pardo**, L. Demkowicz, V.Calo, *Parallel mutli-frontal node based solver for hp Finite Element Method,* "Institute for Computational Engineering and Sciences (ICES)", The University of Texas at Austin, USA, Aug. 2009. (invited)

431. **D. Pardo**, *Multiphysics, Inversion, and Petroleum,* "CIC bioGUNE", Derio, Spain, May 2009. (invited)

432. **D. Pardo**, M. J. Nam, C. Torres-Verdín, *A Framework for the Simulation of Multiphysics Problems Based on a hp Fourier-Finite-Element Method,* "CERFACS", Toulouse, France, Mar 2009. (invited)

433. **D. Pardo**, L. E. García-Castillo, M. J. Nam, C. Torres-Verdín, *A Multiphysics Framework using hp-Finite Elements for Electromagnetic Applications,* "University Carlos III of Madrid", Spain, Mar 2009. (invited)

434. **D. Pardo**, M. J. Nam, P. Matuszyk, *A Framework for the Simulation of Multiphysics Problems Based on a hp Fourier-Finite-Element Method,* "University of Pau", France, Feb 2009. (invited)

435. **D. Pardo**, M. J. Nam, C. Torres-Verdin, *Desarrollo de un Método de Elementos Finitos para Realizar Simulaciones Multifísicas de Gran Precisión,* "University of the Basque Country", Leioa, Spain, Jan 2009. (invited)

436. **D. Pardo**, C. Torres-Verdin, M. J. Nam, V. M. Calo *Inversion of Resistivity and Multiphysics Measurements. Part I: Main Idea and Library Design,* "Basque Center for Applied Mathematics (BCAM)", Bilbao, Spain, Oct 2008. (invited)

437. M. J. Nam, **D. Pardo**, C. Torres-Verdin, *Self-Adaptive hp Finite-Element Simulation of Multi-Component Induction and DC/AC Dual-Laterolog Measurements Acquired in Dipping, Invaded, and Anisotropic Formations,* "Korea Institute of Geoscience and Mineral Resources (KIGAM)", Daejeon, Korea, Sep 2008. (invited)

438. **D. Pardo**, M. J. Nam, C. Torres-Verdin, V. Calo, M. Paszynski, *Simulation of 3D DC and AC Borehole Resistivity Measurements Using a Fourier Series Expansion in a Non-Orthogonal System of Coordinates,* "Poster Presentation at The University of Texas at Austin (SXSVD Golub's day)", Austin, TX, Feb 2008. (invited)

439. **D. Pardo**, C. Torres-Verdin, M.J. Nam, M. Paszynski, L. Demkowicz, *Geophysical Simulations Using hp-Finite Elements,* "The University of Texas at Austin", Austin, TX, Dec 2007. (invited)

MAIN PRESENTATIONS (*continued*)

B) PRESENTATIONS AT A UNIVERSITY (*continued*)

440. **D. Pardo**, M. Paszynski, C. Torres-Verdin, M. J. Nam, Ch. Michler, L. Demkowicz, *Simulaciones Numericas en la Industria del Petroleo Utilizando Elementos Finitos hp,* "Instituto Madrileno de Estudios Avanzados (IMDEA)", Madrid, Spain, Sep 2007. (invited)

441. **D. Pardo**, M. Paszynski, C. Torres-Verdin, M. J. Nam, Ch. Michler, L. Demkowicz, *Three-Dimensional Oil-Industry Applications Using a Goal-Oriented hp-Finite Element Method,* "Stanislaw Staszic University of Science and Technology", Krakow, Poland, Sep 2007. (invited)

442. M. J. Nam, **D. Pardo**, C. Torres-Verdin, *Self-Adaptive hp-Finite Element Simulation of Dual-Laterolog Measurements in Dipping, Invaded, and Anisotropic Formations,* "Korea Institute of Geoscience and Mineral Resources (KIGAM)", Daejeon, Korea, Aug 2007. (invited)

443. C. Michler, L. Demkowicz, C. Torres-Verdin, **D. Pardo**, J. Kurtz, *Efficient Computation of Acoustic Sensing by Means of Adaptive Finite Elements,* "McGill University", Montreal, Canada, Jan 2007. (invited)

444. C. Michler, L. Demkowicz, C. Torres-Verdín, **D. Pardo**, J. Kurtz, *Efficient computation of acoustic sensing with hp-adaptive finite elements,* "Texas A&M University", College Station, TX, USA, Nov 2006. (invited)

445. **D. Pardo**, C. Torres-Verdín, L. Demkowicz, C. Michler, *2D and 3D High Accuracy Simulations of Resistivity Logging Instruments Using A Self-Adaptive Goal-Oriented hp Finite Element Method,* "Department of Geophysics, Colorado School of Mines", Colorado, May 2006. (invited)

446. **D. Pardo**, L.Demkowicz, C. Torres-Verdín, and L. Tabarovsky, *Estrategia de Refinamientos hp 'Orientada a un Objetivo' para la Simulacion de Herramientas Electromagneticas en Pozos Petroliferos,* "1) Universidad Politecnica de Valencia, 2) Universidad Complutense de Madrid, 3) Universidad Carlos III de Madrid, 4) Universidad Autonoma de Madrid, 5) Universidad de Alcala de Henares", Spain, Dec 2004. (invited)

447. **D. Pardo**, and L. Demkowicz, *Estrategia de Refinamientos Automaticos hp Integrada con un Resolvedor de Dos Mallas: Aplicaciones al Electromagnetismo,* "Universidad del Pais Vasco", Spain, Jun 2004. (invited)

448. **D. Pardo**, and L. Demkowicz, *Integration of hp-Adaptivity with a Two Grid Solver: Applications to Electromagnetics,* Ph.D. Dissertation Defense. "The University of Texas at Austin", Apr 2004. (invited)

449. **D. Pardo**, and L. Demkowicz, *Estrategia de Refinamientos Automaticos hp Integrada con un Resolvedor de Dos Mallas: Aplicaciones al Electromagnetismo,* "Universidad Politecnica de Valencia", Spain, Dec 2003. (invited)

450. **D. Pardo**, and L. Demkowicz, *Estrategia de Refinamientos Automaticos hp Integrada con un Resolvedor de Dos Mallas: Aplicaciones al Electromagnetismo,* "Universidad Carlos III de Madrid", Spain, Dec 2003. (invited)

451. **D. Pardo**, and L. Demkowicz, *Estrategia de Refinamientos Automaticos hp Integrada con un Resolvedor de Dos Mallas: Aplicaciones al Electromagnetismo,* "Universidad Autonoma de Madrid", Spain, Dec 2003. (invited)

452. **D. Pardo**, and L. Demkowicz, *Estrategia de Refinamientos Automaticos hp Integrada con un Resolvedor de Dos Mallas: Aplicaciones al Electromagnetismo,* "III Encuentro Iberico de Electromagnetismo computacional", Burgos, Spain, Dec 2003. (invited)

MAIN PRESENTATIONS (*continued*)

C) PRESENTATIONS AT A BUSINESS COMPANY

453. **D. Pardo**, *Deep learning for geophysical applications,* "Oil & Gas Workshop", Bilbao, Spain, Oct. 2019. (invited)
454. **D. Pardo**, *Simulation of Wave Propagation Group,* "BCAM & Iberdrola Meeting", Bilbao, Spain, Apr. 2019. (invited)
455. **D. Pardo**, and A. González, *Deep learning for geosteering applications,* "SHESA", Bilbao, Spain, Feb. 2018. (invited)
456. **D. Pardo**, J. Álvarez-Aramberri, J. Omella, A. Rodríguez-Rozas, M. Strugaru, C. Santos, and H. González, *UPVEL: Final 1D Results and Algorithms for 2D and 3D Simulations,* "Repsol", Madrid, Spain, Jan. 2018. (invited)
457. **D. Pardo**, A. Rodríguez-Rozas, and C. Torres-Verdín, *Fast dimensionally adaptive inversion of LWD and deep azimuthal resistivity measurements,* "Woodside", Perth, Australia, Nov. 2017. (invited)
458. **D. Pardo**, J. Álvarez-Aramberri, J. Omella, A. Rodríguez-Rozas, and M. Strugaru, *UPVEL: One-Dimensional Physics and Numerical Results,* "Repsol", Madrid, Spain, Sep. 2017. (invited)
459. **D. Pardo**, *Group on Mathematical Modeling, Simulation, and Industrial Applications,* "Mercedes", Vitoria, Spain, Nov. 2016. (invited)
460. **D. Pardo**, A. Rodriguez-Rozas, *Dimensionally Adaptive Simulation and Inversion Platform (DASIP),* "Repsol", Madrid, Spain, May. 2016. (invited)
461. **D. Pardo**, *Group on Mathematical Modeling, Simulation, and Industrial Applications,* "TOTAL", Pau, France, Nov. 2013. (invited)
462. L. Demkowicz, **D. Pardo**, *Computing with hp-Finite Elements,* "National Instruments", Austin, TX, USA, Aug 2009.
463. **D. Pardo**, C. Torres-Verdin, M.J. Nam, *Simulations of 2.5D Marine Controlled Source Electromagnetic Measurements (CSEM) Using hp-Finite Elements,* "Chevron", San Ramon, CA, Aug 2008.
464. M. J. Nam, **D. Pardo**, C. Torres-Verdin, *Towards Accurate Simulations of AC Dual-Laterolog Measurements with Tool Eccentricity Using hp Finite Elements,* "Baker-Hughes", Houston, TX, Jan 2008.
465. **D. Pardo**, M.J. Nam, C. Torres-Verdin, M. Paszynski, V.M. Calo, *Numerical Simulations of 3D DC and AC Resistivity Logging Measurements in Deviated Wells Using a Fourier Series Expansion in a Non-Orthogonal System of Coordinates,* "Schlumberger", Houston, TX, Sep 2007. (invited)
466. **D. Pardo**, C. Torres-Verdin, M. J. Nam, M. Paszynski, V.M. Calo, *Numerical Simulations of 3D DC and AC Resistivity Logging Measurements Using a Fourier Series Expansion in a Non-Orthogonal System of Coordinates and a 2D hp-FEM,* "Baker-Hughes", Houston, TX, Aug 2007. (invited)
467. **D. Pardo**, C. Torres-Verdín, W. Yang, *Simulation of Surface-to-Borehole and Cross-Well EM Measurements Due to Energized Steel Casing. Part II,* "Shell", Houston, TX, Jul 2006. (invited)

MAIN PRESENTATIONS (*continued*)

C) PRESENTATIONS AT A BUSINESS COMPANY (*continued*)

468. **D. Pardo**, C. Torres-Verdín, L. Demkowicz, *The Development of a 3D Self-Adaptive Goal-Oriented hp-Finite Element Software for Simulations of DC Resistivity Logging Instruments,* "Baker-Hughes", Houston, TX, Jun 2006. (invited)

469. **D. Pardo**, C. Torres-Verdín, and L. Demkowicz, *Simulation of Surface-to-Borehole and Cross-Well EM Measurements Due to Energized Steel Casing,* "Shell, Houston", TX, Jan 2006. (invited)

470. **D. Pardo**, L. Demkowicz, C. Torres-Verdín, M. Paszynski, and J. Kurtz, *The Development of a 3D Self-Adaptive Goal-Oriented hp-Finite Element Software for Simulations of Resistivity Logging Instruments. A Progress Report,* "Baker-Hughes", Houston, TX, Dec 2005. (invited)

471. L. Demkowicz, **D. Pardo**, and C. Torres-Verdín, *The hp-Adaptive Finite Element Method: A Short Course,* "Baker-Atlas, a Division of Baker-Hughes", Novosibirsk, Russia, Nov 2005. (invited)

472. **D. Pardo**, C. Torres-Verdín, and L. Demkowicz, *Simulation of Resistivity Logging Instruments with Mandrel Using a Self-Adaptive Goal-Oriented hp-Finite Element Method,* "Shell", Houston, TX, Jun 2005. (invited)

473. **D. Pardo**, C. Torres-Verdín, and L. Demkowicz, L. Tabarovsky, A. Bespalov, *Progress Report: One Year on a Development of A Self-Adaptive Goal-Oriented hp-Finite Element Strategy for Simulations of Resistivity Logging Instruments,* "Baker-Hughes", Houston, TX, Jun 2005. (invited)

474. **D. Pardo**, C. Torres-Verdín, L. Demkowicz, L. Tabarovsky, and A. Bespalov, *Progress Report: A Fully Automatic Goal-Oriented hp-Adaptive Finite Element Strategy for Simulations of Resistivity Logging Instruments,* "Baker-Hughes", Houston, TX, Feb 2005. (invited)

475. **D. Pardo**, C. Torres-Verdín, and L. Demkowicz, *A New Fully Automatic Goal-Oriented hp-Adaptive Finite Element Strategy for Simulations of Resistivity Logging Instruments,* "1) Center for Subsurface Modeling Affiliates Meeting, Austin, TX, 2) SIG Resistivity Meeting, ConocoPhillips", Houston, TX, Oct 2004. (invited)

476. **D. Pardo**, L. Demkowicz, C. Torres-Verdín, and L. Tabarovsky, *A Fully Automatic Goal-Oriented hp-Adaptive Strategy with Applications to Electromagnetics, Part I: A DC Resistivity Logging Problem.* "Baker-Hughes", Houston, TX, Jul 2004. (invited)

477. **D. Pardo**, and L. Demkowicz, *Integration of hp-Adaptivity with a Two Grid Solver: Applications to Electromagnetics. Progress Report II,* "Baker-Hughes", Houston, TX, Feb 2004. (invited)

478. **D. Pardo**, and L. Demkowicz, *Integration of hp-Adaptivity with a Two Grid Solver: Applications to Electromagnetics. Progress Report I,* "Baker-Hughes", Houston, TX, Dec 2003. (invited)

479. **D. Pardo**, *An hp-Adaptive Finite Element (FE) Method for Solving Electromagnetic (EM) Problems with Special Emphasis in Petroleum Engineering Applications,* "Baker-Hughes", Houston, TX, Jun 2003. (invited)

480. **D. Pardo**, *Limitations of a Fully Automatic hp-Adaptive Strategy for the Finite Element (FE) Method,* "Baker-Hughes", Houston, TX, Jun 2003. (invited)

481. **D. Pardo**, *Analysis of Edge Singularities Arising in Electromagnetic Computations,* "Baker-Hughes", Houston, TX, May 2003. (invited)