

Curriculum Vitae
ALESSANDRO M. FORTE

A. BIOGRAPHICAL INFORMATION

1. Personal

birthplace: Rome, Italy
languages: English, French, Italian (spoken & written)
title: Professor of Geophysics
mailing address: Department of Geological Sciences
University of Florida
241 Williamson Hall
P.O. Box 112120
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2. Academic Degrees

Ph.D., Geophysics, 1989, University of Toronto
M.Sc., Physics, 1985, University of Toronto
B.A.Sc., Engineering Science, 1983, University of Toronto

Doctoral Thesis: “Mantle Convection and Global Geophysical Observables”
Supervisor: Professor W.R. Peltier

3. Academic Appointments

Feb 2016 – present Professor, University of Florida, Gainesville, USA
Sep 2020 – present Research Associate – Institut de Physique du Globe de Paris, France
Nov 2017 – present Adjunct Professor, University of Quebec at Montreal (UQAM)
Montreal, Canada
Jun 2018 Visiting Professor, Institut de Physique du Globe de Paris
(IPGP), France
May 2017 Visiting Professor, Università degli Studi Roma III, Rome, Italy
Jun 2016 Visiting Professor, Institut de Physique du Globe de Paris
(IPGP), France
Jul 2003 – Jan 2016 Professor, University of Quebec at Montreal (UQAM), Montreal, Canada
Jun 2013 Visiting Professor, Université Pierre et Marie Curie, Paris, France
May – Aug 2012 Visiting Professor, Eidgenössische Technische Hochschule (ETH)
Zürich, Switzerland
Jan – Mar 2012 Visiting Professor, University of Grenoble, France
Oct – Nov 2011, Apr 2012 Visiting Professor, Institut de Physique du Globe de Paris
(IPGP), France
Apr – Aug 2004 Visiting Professor, Earthquake Research Institute, Tokyo, Japan
Jul 2001 – Jun 2003 Associate Professor, University of Western Ontario, Canada
Jun – Jul 2002 Visiting Professor, Institut de Physique du Globe de Paris
(IPGP), France

Jun – Jul 2001	Visiting Professor, University of Utrecht, Netherlands
May – Jul 2000	Visiting Professor, University of Paris, France
Nov 1998 – Jun 2001	Assistant Professor, University of Western Ontario, Canada
Sep 1995 – Oct 1998	Maître de Conférences (tenured), IPGP, France
Feb 1994 & Jan 1997	Visiting Scientist, USGS, Albuquerque Seismic Lab., USA
Mar 1994 - Aug 1995	Maître de Conférences associé (assistant professor), IPGP, France
Sept 1992 - Mar 1994	Research Associate, Harvard University, U.S.A.
Oct 1989 - Sept 1992	Postdoctoral Research Fellow, Harvard University, U.S.A.

4. Honours

- In March 2019, I was appointed laureate of the international climate-change initiative: “Make our Planet Great Again”, launched by French President Emmanuel Macron and managed by the French national science foundation (*ANR*).
UF coverage, CNRS coverage & U-Paris coverage
- In April 2013, I was named Fellow of the John Simon Guggenheim Memorial Foundation.
guggenheim-alessandro-forte
- In July 2003, I was appointed Canada Research Chair in Numerical Modelling and Global Geodynamics at the Université du Québec à Montréal (UQAM).
- In August 2001, I was appointed Fellow of the Canadian Institute for Advanced Research, in the “Earth Science Evolution Program”.

5. Illness and Impact on Research

A lengthy period of illness extending from 2019 to 2020, and in 2022, led to a slowdown in research productivity and related activities.

B. ACADEMIC ACTIVITY

1. Research Interests and Domains

Computer modelling of physical connections between global geological processes at the Earth’s surface and the dynamics in the deep interior. The objective is to develop a detailed, unified understanding of global-scale dynamics of the solid Earth and to directly map the evolution of 3-D structures in Earth’s deep interior over geological time scales. This multidisciplinary work involves the following research domains:

- geodynamics
- computational and numerical modelling
- physics of planetary interiors
- global seismology
- geophysical inverse theory
- mathematical physics

2. Research Funding History (2011 – present)

Project in preparation

- **2025:** “Machine learning-driven optimization of mantle viscosity maps constrained by geodynamic data: From 1-D radial profiles to 3-D lateral variations”. *US National Science Foundation* – Structure and Physics of the Solid Earth (SPSE). Projected total funding requested: \$345,000. Alessandro M. Forte (PI at *UF*) & Petar Glišović (Senior Personnel at *Institut de Physique du Globe de Paris*). Anticipated submission date: February/March, 2025.

Currently funded projects

- **2020-2026:** “GeodYnamic Perturbations of ClimaTe SIgnals” (**GYPTIS**). *Agence Nationale de la Recherche* (ANR, France), under auspices of “Make Our Planet Great Again” (MOPGA) initiative. Total funding received: €1,499,970, 50% provided by ANR and 50% matching funds from the Institut de Physique du Globe de Paris (host institution in France). Principal Investigator (PI): Alessandro M. Forte.
- **2019-2025:** “Collaborative Research: Joint seismic-geodynamic constraints on deep Earth structure – Implications for mantle convection and Earth rotation”. *US National Science Foundation* – Cooperative Studies of the Earth’s Deep Interior (CSEDI). Total funding received: \$498,069. PI: Alessandro M. Forte received \$326,167. Co-PI, Stephen P. Grand (U Texas, Austin) received \$171,902

Past funded projects

- **2020-2021:** “Modelling the 3-D Structure and Evolution of Earth’s Mantle”. *Compute Canada’s Resources for Research Groups* 2020 competition. Total funding received: 325 core-years, equivalent dollar value = CAD\$ 39,377. PI: Alessandro M. Forte, Co-investigator: Petar Glišović (Université du Québec à Montréal).
- **2018-2019:** “Numerical Reconstructions of Earth’s Thermal Evolution” (continued). *Compute Canada’s Resources for Research Groups* 2018 competition. Total funding received: 460 core-years, equivalent dollar value = CAD\$ 72,077. PI: Alessandro M. Forte, Co-investigator: Petar Glišović (Université du Québec à Montréal).
- **2017-2018:** “Numerical Reconstructions of Earth’s Thermal Evolution”. *Compute Canada’s Resources for Research Groups* 2017 competition. Total funding received: 483 core years, equivalent dollar value = CAD\$ 91,151. PI: Alessandro M. Forte, Co-investigator: Petar Glišović (Université du Québec à Montréal).
- **2016 – present:** *University of Florida* “Start-Up” Grant for Alessandro M. Forte. Total funding received: \$887,230
- **2013-2018:** “Modelling and Interpreting the Surface Evolution of the Earth in Terms of Mantle Convection: Global Implications of High Heat Flow at the Core-Mantle Boundary”. *Natural Sciences and Engineering Research Council of Canada* (NSERC). Total funding received: CAD\$ 285,000. PI: Alessandro M. Forte.
- **2013-2016:** Discovery Grants Program – Accelerator Supplement. *Natural Sciences and Engineering Research Council of Canada* (NSERC). Total funding received: CAD\$ 120,000. PI: Alessandro M. Forte.

- **2011-2014:** “Earth System Evolution Program”. *Canadian Institute for Advanced Research* (CIFAR). Total funding received: CAD\$ 75,000. PI: Alessandro M. Forte.
- **2013-2014:** “Modelling the impact of global movements of mass and heat deep inside the Earth on the evolution of our planet”. *John Simon Guggenheim Memorial Foundation*. Total funding received: \$ 42,000. PI: Alessandro M. Forte.
- **2011-2013:** “Modelling and Prediction of Dynamical Impact of Mantle Convection on Global Surface Processes”. *Natural Sciences and Engineering Research Council of Canada* (NSERC). Total funding received during this period: CAD\$ 95,000. PI: Alessandro M. Forte. (Note: This grant was awarded for a 5-year period, beginning in 2008, and total funding received from 2008 to 2013 was CAD\$ 237,500)

3. Teaching Curriculum

- “Current Trends in Solid Earth Geophysics” – Graduate course, UF, 2024 – present
- “Is the Planet Dying? - History of the birth and life crises of our dynamic planet” – QUEST-2 undergraduate course, UF, 2023 – present
- “Global Geodynamics” – Graduate course, UF, 2016 – present
- “Inversion Methods for the Geosciences” – Graduate course, UF, 2019 – present
- “Global Sea Level Change: Observations and Models” – Graduate course, UF, 2017 – present
- “Géophysique Globale” – Graduate course, UQAM, 2011 – 2015.
- “Dynamique du Globe” – Graduate course, UQAM, 2008 – 2015.
- “Concept de Système” – Graduate course, UQAM, 2007 – 2014.
- “Géophysique Appliquée” – Graduate course, UQAM, 2015.
- “Terre-Océans-Atmosphère” – Graduate course, UQAM, 2014.
- “Introduction à la Géodynamique et la Tectonique Globale” – Undergraduate course, UQAM, 2015.
- “Fondements et Notions Générales pour la Reconnaissance de la Planète Terre” – Undergraduate course, UQAM, 2011 – 2015.
- “Introduction au Système Terre” – Undergraduate course, UQAM, 2013 – 2015.
- “Géologie Dynamique II” – Graduate course, UQAM, 2004 – 2007.
- “Géologie Profonde” – Undergraduate course, UQAM, 2005.
- “Global Geodynamics: Deformation and Heat Transfer in the Solid Earth on Geological Time Scales” – GP520b, Graduate course, University of Western Ontario (UWO), 2001–2003.
- “Physics of the Earth II” – ES421b, Undergraduate course, UWO, 1999–2003.
- “Geophysical Forward and Inverse Modelling Methods” – ES420a, Undergraduate course, UWO, 1999–2003.
- “Plate Tectonics and Geodynamics” – Graduate course, Institut de Physique du Globe de Paris, 1995 – 1998.
- “Seismology” – Graduate core course, Institut de Physique du Globe de Paris, 1994 – 1998.
- “Seismic Imaging and Modeling” – Graduate core course in the Applied Geophysics Program (DESS), Institut de Physique du Globe de Paris, 1995 – 1998.

4. National and International Collaborations

Catherine Chauvel, Marianne Greff, Cinzia Farnetani (Institut de Physique du Globe de Paris, France)

Jacques Laskar (Observatoire de Paris, France)

Stephen Grand (University of Texas at Austin)

Nathan Simmons (Lawrence Livermore National Laboratory, California)
David Rowley (University of Chicago – *deceased in 2024*)
Jerry Mitrovica (Harvard University)
Fiona Darbyshire (University of Quebec at Montreal)

5. Invited Lectures - Colloquia & Conferences (*since 2020*)

(*The following is a condensed list of invited colloquia and conferences in which I was first author.*)

- “Facing Global Change”, Franco-German scientific conference, Berlin, Germany. Geodynamic Perturbations of Climate Signals, in “Trends Based on Past Climate” session, 12/2022.
- “Shaping French-American Climate Research Collaboration”, Embassy of France, Washington DC. Geodynamic Perturbations of Climate Signals, in “Earth System Sciences” session, 10/2022
- “Assessing, Understanding, Mitigating Global Change”, Franco-German scientific conference, Strasbourg, France. Geodynamic Modelling of Sea Level Markers in Past Geological Warm Periods, live online presentation, 11/2021.
- Department of the Geophysical Sciences, University of Chicago. Gone with the (mantle) wind: Joint seismic-geodynamic constraints on mantle-convective flow, heat transport and hotspot source regions. Invited colloquium presentation, 02/2020.

C. RESEARCH CONTRIBUTIONS

Published Conference Abstracts (*since 2020*)

(*In the following, the names of all students and postdoctoral researchers who are, or were, supervised by me are underlined.*)

If available, are provided the number of citations and/or online reads/views of each item below.

- [1] **Forte, A.M.**, Glišović, P., Rowley, D., Greff-Lefftz, M., & Kamali Lima, S. Resolving 70 Million Years of Earth’s True Polar Wander and Precession: Paleomagnetic Validation of a Seismic Tomography–Based Mantle Convection Model, in *EGU General Assembly*, (April) 2025. doi.org/10.5281/zenodo.14740494 (63 reads & 2 recommendations on *researchgate.net* on 01-28-2025)
- [2] Kamali Lima, S., **Forte, A.M.**, Greff-Lefftz, M., & Glišović, P. Crustal Contributions to Moment of Inertia as Key Constraints for Earth-Like Mantle Convection Models: “Munk & MacDonald (1960)” Revisited, in *EGU General Assembly*, (April) 2025. doi.org/10.5281/zenodo.14740134 (6 views & 9 downloads on 01-28-2025)
- [3] Johnston, G., Liu, S., **Forte, A.M.**, & Glišović, P. Playing with Edges: The Influence of Arbitrary Definitions on Hotspot–LLSVP Correlations, in *EGU General Assembly*, (April) 2025. doi.org/10.5281/zenodo.14740086 (7 views & 8 downloads on 01-26-2025)
- [4] Glišović, P., & **Forte, A.M.** The Cenozoic Evolution of Earth’s Strongest Geoid Low: Insights into Mantle Dynamics below Antarctica, in *EGU General Assembly*, (April) 2025. doi.org/10.5281/zenodo.14740025 (11 downloads & 14 reads on *researchgate.net* on 01-28-2025)

- [5] Kamali Lima, S., **Forte, A. M.**, & Greff, M. A Geodynamically Consistent Approach to Residual Topography and Geoid Anomalies on the Convecting Mantle: Importance of Global Crustal Models, in *EGU General Assembly*, p. 12457, (April) 2024. doi.org/10.5194/egusphere-egu24-12457 (8 reads on *researchgate.net* on 01-28-2025)
- [6] Dutton, A., Dechnik, B., Webster, J., Kajan, M., **Forte, A.M.**, Glišović, P., Webb, G.E. & Nothdurft, L.D. Mantle-driven subsidence of Last Interglacial reef points to origins of the Great Barrier Reef, *American Geophysical Union, Fall Meeting*, Abstract C11B-04. (December) 2023. [agu/fm23/Paper/1314823](https://agu.fm23/Paper/1314823)
- [7] Anderson, M., Perfit, M., Graham, D. W., Kamenov, G., **Forte, A.**, & Johnston, G. Testing Models for Three-Component Mantle Heterogeneity as Recorded in Compositions of Lavas from the Off-Axis 8° 20'N Seamount Chain, *Goldschmidt Conference*. doi.org/10.46427/gold2022.12742. (July) 2022.
- [8] **Forte, A.**, Kajan, M. & Glišović, P. The impact of Earth's internal dynamics on the global gravity field and temporal evolution of its external elliptical figure. "AstroGeo" Seminar Series (*European Research Council*), March 2022. https://www.astrogeo.eu/?page_id=762
- [9] Johnston, G., **Forte, A.**, & Glišović, P. Time-Dependent Convective Modelling of DUPAL Signatures in the South Atlantic: Implications for LLSVP Source Region, *American Geophysical Union, Fall Meeting*, Abstract DI44B-07. (December) 2021. [agu/fm21/Paper/998746](https://agu.fm21/Paper/998746)
- [10] Kajan, M., **Forte, A.** & Glišović, P. Joint Seismic-Geodynamic Modelling of Convection-Driven True Polar Wander During the Paleogene, *American Geophysical Union, Fall Meeting*, Abstract GP31A-04. (December) 2021. [agu/fm21/Paper/918306](https://agu.fm21/Paper/918306)
- [11] Liu, S., **Forte, A.**, & Rowley, D. Plate motion driving forces revisited. *American Geophysical Union, Fall Meeting*, Abstract DI45D-0060. (December) 2021. [agu/fm21/Paper/995875](https://agu.fm21/Paper/995875)
- [12] Glišović, P., Grand, S. P., Lu, C., **Forte, A. M.**, & Wei, S.S. Improved Joint Seismic-Geodynamic Tomography: Effects of Topography at Discontinuities in the Transition Zone on Mantle Heterogeneity and Convection-Related Observables, *American Geophysical Union, Fall Meeting*, Abstract DI002-0014. (December) 2020. [agu/fm20/Paper/716917](https://agu.fm20/Paper/716917)

Submitted Publications

- [13] **Forte, A.M.**, Glišović, P., Rowley, D.B., Greff, M. & Kamali Lima, S. Validating 70 Million Years of Convection Driven True Polar Wander and Dynamic Flattening with Paleomagnetic Data, *Nature*, in review, submitted November 2024.
- [14] Glišović, P. and **Forte, A.M.** The Cenozoic Evolution of Earth's Strongest Geoid Low: Insights into Mantle Dynamics below Antarctica, *Nature Geoscience*, in review, submitted December 2024.
- [15] Richards, C. et al., (multi-author paper), Global environmental challenges require interdisciplinary science programs: Lessons learned from the Franco-German MOPGA initiative, *Proc. Natl. Acad. Sci. U.S.A.*, in revision, December 2024.

Journal Publications and Scholarly Works (*since 2020*)

If available, are provided the number of citations and/or online reads/views of each item below.

- [16] **Forte, Alessandro**, Petar Glišović, Marianne Greff-Lefftz, Shayan Kamali Lima & David Rowley. Validating 70 Million Years of Convection Driven True Polar Wander and Dynamic Flattening with Paleomagnetic Data. *Research Square* (2025). <https://doi.org/10.21203/rs.3.rs-5397333/v1> (88 views on 01-28-2025)
- [17] Kamali Lima, S., **Forte, A. M.**, & Greff, M. From Classical to Dynamic Isostasy: A Geodynamically Consistent Approach to Crustal Topography and Gravity Fields, *Geophysical Journal International*, in press, 2025.
- [18] Johnston, G., **Forte, A.**, Glišović, P., Chauvel, C., Farnetani, C., & Robert, B. (2024, September 3). Towards a New Geodynamic and Geochemical Reconciliation of the Origin of the DUPAL Geochemical Anomaly in the South Atlantic and Southwest Indian Oceans. 2024 *Ada Lovelace Workshop on Modelling Mantle and Lithosphere Dynamics*, Sète, France. <https://doi.org/10.5281/zenodo.14706576> (19 views & 21 downloads on 01-28-2025)
- [19] Kamali Lima, S., **Forte, A.**, & Greff-Lefftz, M. (2024, April 18). A Geodynamically Consistent Approach to Residual Topography and Geoid Anomalies on the Convecting Mantle: Importance of Global Crustal Models. *EGU General Assembly 2024*, Vienna, Austria. <https://doi.org/10.5281/zenodo.14692817> (17 views & 18 downloads on 01-28-2025)
- [20] **Forte, Alessandro M.** & David. B. Rowley. Earth's Isostatic and Dynamic Topography: A Critical Perspective, *Geochemistry, Geophysics, Geosystems*, **23**,no.9: e2021GC009740, 2022. (252 reads, 8 citations, on 01-28-2025, source: [Researchgate](#))
- [21] Rowley, David. B. & **Alessandro M. Forte**. Kinematics of the East Pacific Rise retrodicted from Pacific and Nazca/Farallon Subduction-Related Torques: Support for significant deep mantle buoyancy controlling EPR spreading, *Journal of Geophysical Research - Solid Earth*, **27**(2), e2020JB021638, 2022. (103 reads, 8 citations, on 01-28-2025, source: [Researchgate](#))
- [22] Glišović, P., Stephen P. Grand, Chang Lu, **Alessandro Forte**, Songqiao Wei. The Effects of Discontinuity Topography in the Mantle Transition Zone on Global Geodynamic Observables and Mantle Heterogeneity, *Geophysical Journal International*, **230**(1), 623-642, 2022. (244 reads, 1 citations, on 01-28-2025, source: [Researchgate](#))
- [23] **Forte, Alessandro**, Marie (Thomas) Kajan & Petar Glišović, "Earth's Internal Dynamics: Impact on Gravity Field and Elliptical Figure." *AstroGeo Project* (supported by European Research Council), March 17, 2022. Video, 1:38:47. <https://www.youtube.com/watch?v=DZKYdOyQnI>. (249 views on 01-28-2025)
- [24] **Forte, Alessandro**. "How forces inside the solid Earth directly influence changing sea levels" *Make Our Planet Great Again* (supported by French National Research Agency: ANR). January 24, 2022. Video, 49:40. <https://www.youtube.com/watch?v=-QKxFaa7M>. (207 views on 01-28-2025)
- [25] **Forte, A.M.**, Plate-Driving Forces, in: Gupta, H.K. (eds) *Encyclopedia of Solid Earth Geophysics*. Encyclopedia of Earth Sciences Series. Springer, Cham., 2021. doi.org/10.1007/978-3-030-58631-7_215 (235 reads, 2 recommendations, on 01-28-2025, source: [Researchgate](#))
- [26] **Forte, A.M.**, Geodynamics, in: Gupta, H.K. (eds) *Encyclopedia of Solid Earth Geophysics*. Encyclopedia of Earth Sciences Series. Springer, Cham., 2021. doi.org/10.1007/978-3-030-58631-7_214 (94 views on 01-28-2025, source: [Springer-Nature](#))

- [27] Lu, Chang, **Alessandro M. Forte**, Nathan A. Simmons, Stephen P. Grand, Marie N. Kajan (Thomas), Hongyu Lai & Edward J. Garnero. The Sensitivity of Joint Inversions of Seismic and Geodynamic Data to Mantle Viscosity, *Geochemistry, Geophysics, Geosystems*, **21**, p. 1 – 29, e2019GC008648, 2020. (196 reads, 3 recommendations, 18 citations, on 01-28-2025, source: [Researchgate](#) & [Google Scholar](#))

Journal Publications and Scholarly Works (*prior to 2020*)

- [28] Faccenna, Claudio, Petar Glišović, **Alessandro M. Forte**, Thorsten W. Becker, Eduardo Garzanti, and Andrea Sembroni. Role of dynamic topography in sustaining the Nile River over 30 million years. *Nature Geoscience*, **12**(12), 1012–1017, 2019.
- [29] Glišović, Petar, and **Alessandro M. Forte**. Two deep mantle sources for Paleocene doming and volcanism in the North Atlantic. *Proc. Natl. Acad. Sci. U.S.A.*, **116**(27), 13227–13232, 2019.
- [30] Walker, A. M., Dobson, D. P., Wookey, J., Nowacki, A., & **Forte, A. M.**, The anisotropic signal of topotaxy during phase transitions in D; *Physics of the Earth and Planetary Interiors, Phys. Earth Planet. Inter.*, **276**, 159–171, 2018.
- [31] Glišović, P. and **Forte, A.M.**, On the deep-mantle origin of the Deccan Traps, *Science*, **355**(6325), 613–616, 2017.
- [32] Rowley, D.B., **Forte, A.M.**, Rowan, C.J., Glišović, P., Grand, S.P. and Simmons, N.A., Kinematics and Dynamics of the East Pacific Rise Linked to a Stable, Deep-Mantle Upwelling, *Science Advances*, **2**(12), e1601107, 2017.
- [33] Dowsett, H., Dolan, A., Rowley, D., Moucha, R., **Forte, A.M.**, Mitrovica, J. X., Pound, M., Salzmann, U., Robinson, M., Chandler, M., Foley, K., and Haywood, A.: The PRISM4 (mid-Piacenzian) paleoenvironmental reconstruction, *Clim. Past*, **12**, 1519–1538, doi:10.5194/cp-12-1519-2016, 2016.
- [34] Glišović, P. and **Forte, A.M.**, A new back-and-forth iterative method for time-reversed convection modeling: Implications for the Cenozoic evolution of 3-D structure and dynamics of the mantle, *Journal of Geophysical Research: Solid Earth*, **121**(6), 4067–4084, 2016.
- [35] Darbyshire, F.A., Bastow, I.D., **Forte, A. M.**, Hobbs, T.E., Calvel, A., Gonzalez-Monteza, A., & Schow, B., Variability and origin of seismic anisotropy across eastern Canada: Evidence from shear wave splitting measurements. *Journal of Geophysical Research: Solid Earth*, **120**(12), 8404–8421, 2015.
- [36] Austermann, J., Pollard, D., Mitrovica, J.X., Moucha, R., **Forte, A.M.**, DeConto, R.M., Rowley, D.B., & Raymo, M.E., The impact of dynamic topography change on Antarctic ice sheet stability during the mid-Pliocene warm period. *Geology*, **43**(10), 927–930, 2015.
- [37] Glišović, P., **Forte, A.M.** & Ammann, M.W., Variations in grain size and viscosity based on vacancy diffusion in minerals, seismic tomography, and geodynamically inferred mantle rheology. *Geophysical Research Letters*, **42**(15), 6278–6286, 2015.
- [38] Glišović, P. and **Forte, A.M.**, Importance of initial buoyancy field on evolution of mantle thermal structure: Implications of surface boundary conditions, *Geoscience Frontiers*, **6**(1), 3–22, 2015.

- [39] Soldati, G., Boschi, L., Della Mora, S., & **Forte, A.M.**, Tomography of core-mantle boundary and lowermost mantle coupled by geodynamics: Joint models of shear and compressional velocity, *Annals of Geophysics*, **57**(6), 2015.
- [40] Rovere, A., P.J. Hearty, J. Austermann, J.X. Mitrovica, J. Gale, R. Moucha, **A.M. Forte**, and M.E. Raymo, Mid-Pliocene shorelines of the US Atlantic Coastal Plain – An improved elevation database with comparison to Earth model predictions, *Earth-Science Reviews* **145**, 117–131, 2015.
- [41] Glišović, P. and **Forte, A.M.**, Reconstructing the Cenozoic evolution of the mantle: Implications for mantle plume dynamics under the Pacific and Indian plates, *Earth Planet. Sci. Lett.*, **390**, 146–156, 2014.
- [42] Ammann, M.W., Walker, A.M., Stackhouse, S., Wookey, J., **Forte, A.M.**, Brodholt, J.P. and Dobson, D.P., Variation of thermal conductivity and heat flux at the Earth’s core mantle boundary, *Earth Planet. Sci. Lett.*, **390**, 175–185, 2014.
- [43] Rowley, D.B., **Forte, A.M.**, Moucha, R., Mitrovica, J.X., Simmons, N.A. and Grand, S.P., Dynamic Topography Change of the Eastern U. S. Since 3 Million Years Ago, *Science*, **340**, 1560–1563, 2013.
- [44] Morrow, E., Mitrovica, J.X., **Forte, A.M.**, Huybers, P. and P. Glisovic, An enigma in estimates of the Earth’s dynamic ellipticity, *Geophys. J. Int.*, **191**, 1129–1134, 2012.
- [45] Glišović, P., **Forte, A.M.** and Moucha, R., Time-dependent convection models of mantle thermal structure constrained by seismic tomography and geodynamics: implications for mantle plume dynamics and CMB heat flux, *Geophys. J. Int.*, **190**, 785–815, 2012.
- [46] Soldati, G., Boschi, L. and **Forte, A.M.**, Tomography of core-mantle boundary and lowermost mantle coupled by geodynamics, *Geophys. J. Int.*, **189**(2), 730–746, 2012.
- [47] Walker, A.M., **Forte, A.M.**, Wookey, J., Nowacki, A. and J.-M. Kendall, Elastic anisotropy of D” predicted from global models of mantle flow, *Geochem. Geophys. Geosyst.*, **12**, Q10006, doi:10.1029/2011GC003732, 2011.
- [48] Moucha, R. and **Forte, A.M.**, Changes in African topography driven by mantle convection, *Nature Geoscience*, **4**, 707–712, 2011.
- [49] Simmons, N.A., **Forte, A.M.**, Boschi, L. and S.P. Grand, GyPSuM: A joint tomographic model of mantle density and seismic wave speeds, *J. Geophys. Res.*, **115**, doi:10.1029/2010JB007631, 2010.
- [50] Perry, H.K.C. & **A.M. Forte**, Upper-mantle thermochemical structure from seismic-geodynamic flow models: Constraints from the Lithoprobe initiative, *Can. J. Earth Sci.*, **47**(4), 463–484, 2010.
- [51] **Forte, A.M.**, S. Quéré, R. Moucha, N.A. Simmons, S.P. Grand, J.X. Mitrovica, D.B. Rowley, Joint seismic-geodynamic-mineral physical modelling of African geodynamics: A reconciliation of deep-mantle convection with surface geophysical constraints, *Earth Planet. Sci. Lett.*, **295**, 329–341, 2010.
- [52] **Forte, A.M.**, R. Moucha, N.A. Simmons, S.P. Grand, J.X. Mitrovica, Deep mantle contributions to the surface dynamics of the North American continent, *Tectonophysics*, **481**, 3–15, 2010.

- [53] **Forte, A.M.**, R. Moucha, D.B. Rowley, S. Quéré, J.X. Mitrovica, N.A. Simmons, S.P. Grand, Recent tectonic plate decelerations driven by mantle convection, *Geophys. Res. Lett.*, **36**, L23301, doi:10.1029/2009GL040224, 2009.
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Other Publications and Scholarly Works (*prior to 2020*)

- [98] Austermann, Jacqueline and **Alessandro M. Forte**. The importance of dynamic topography for understanding past sea level changes, *PAGES Magazine*, Vol.**27**(No 1), 18–19, 2019.
- [99] **Forte, A.M.**, Constraints on seismic models from other disciplines – Implications for the global mantle convective flow, in Volume 1 of *Treatise of Geophysics, 2nd Edition*, edited by B. Romanowicz and A.M. Dziewonski, Elsevier, pp. 853–907, 2015.
- [100] **Forte, A.M.**, Plate Driving Forces, in *Encyclopedia of Solid Earth Geophysics*, edited by H.K. Gupta, Springer (Dordrecht, Netherlands), pp. 977–983, 2011.
- [101] Robert, X., Moucha, R., Reiners, P., **Forte, A.** and Whipple, K., Cenozoic evolution of the Grand Canyon and the Colorado Plateau driven by mantle dynamics?, in *CRevolution 2–Origin and Evolution of the Colorado River System, Workshop*, edited by Beard, L.S., Karlstrom, K.E., Young, R.A. and Billingsley, G.H., Abstracts: U.S. Geological Survey Open-File Report 2011-1210, p. 238–244, 2011.
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- [103] **Forte, A.M.**, Constraints on seismic models from other disciplines – Implications for mantle dynamics and composition, in Volume 1 of *Treatise of Geophysics*, edited by B. Romanowicz and A.M. Dziewonski, Elsevier, pp. 805–858, 2007.
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Conference Presentations (*prior to 2020*)

In the following I present a condensed listing of only the **invited** scientific presentations, given in various international conferences and colloquia, in which I was **first** author.

Invited Lectures - Colloquia

- Institut de Physique du Globe de Paris, France.* Convection on the Edge: Impact of Mantle-Wide Hot Upwellings on Surface Dynamics and Heat Budget, in “The Evolving Earth” workshop, 06/2019.
- Institut de Physique du Globe de Paris, France.* The dominant large scale structure in Earth’s lower mantle, 10/2016.
- Universita di Genova, Italy.* Modelli de la geodinamica globale sulla superficie terrestre: Perche il mantello profondo e importante, 05/2015.
- University of Florida, Gainesville FL, USA.* Modelling the Global Dynamics at Earth’s Surface: Why the Deep Mantle Matters, 03/2015
- Department of Earth & Planetary Sci., McGill University, Montreal.* New Models of the Global Dynamics at Earth’s Surface: Why the Deep Mantle Matters!, 01/2015.
- Department of Earth Sciences, ETH Zurich, Switzerland.* Joint Global Seismic-Geodynamic Constraints on High Heat Flux Across the Core-Mantle Boundary: Implications for Large-Scale Plume Dynamics in Earth’s Mantle, 05/2012.
- GEOAZUR, Université de Nice, France.* Seismic-Geodynamic-Mineral Physical Constraints on High Heat Flux Across the Core-Mantle Boundary: Implications for Mantle Plumes and Surface Dynamics, 03/2012.

ISTerre, Université de Grenoble, France. Nouvelles contraintes sismiques-géodynamiques sur le flux de chaleur à la CMB: Conséquences pour la dynamique et l'importance des panaches chaudes dans le manteau, 02/2012.

Institut de Physique du Globe de Paris, France. How Earth's surface topography is affected by dynamics deep inside the mantle, 02/2012.

Dept. of Physics, University of Toronto. Seismically Constrained Models of Mantle and Surface Dynamics, 12/2011.

Adam Dziewonski Symposium, Department of Earth and Planetary Sciences, Harvard University, Cambridge, MA, USA. Tomography-based convection models reveal the importance of deep-seated hot thermal upwellings in the mantle, 06/2011.

ISTerre, Université de Grenoble, France. What does the Earth's surface topography reveal about the dynamics deep inside our planet?, 05/2011.

Department of Geology and Geophysics, Yale University, New Haven, CT, USA. Joint seismic-geodynamic-mineral physical constraints on thermochemical structure, mantle-flow dynamics and heat transport in Earth's deep mantle, 02/2011.

Department of Earth and Environmental Sciences, University of Pennsylvania, PA, USA. Deep-earth dynamics below North America: Implications for the uplift of the Atlantic coastal margin of the US, 01/2011.

Department of Earth and Environmental Sciences, Lehigh University, Bethlehem, PA, USA. Deep-earth dynamics below North America: Mantle convection drives uplift of the Atlantic coastal margin of the US, 09/2010.

Department of Geography & Geology, University of Copenhagen, Denmark. Mantle dynamics and surface processes: Numerical modelling of geodynamic processes – A special short-course taught in collaboration with Greg Houseman, 01/2010.

Institut de Physique du Globe de Paris, France. New seismic-geodynamic-mineral physical constraints on heat flux at the core-mantle boundary: Implications for the importance of active hot thermal plumes, 10/2009.

Purdue University, USA. Deep thoughts on lithospheric dynamics: Why the mantle matters, 10/2009.

Géosciences Rennes, Université de Rennes 1, France. Mantle convection modelling of time-dependent topography of Africa, 02/2009.

Stanford University, Dept. of Geophysics, USA. Global surface deformation and relative sea level variations driven by mantle convection: Are there any stable continental platforms?, 02/2009.

University of Chicago, Dept. of Geophysical Sciences, USA. Deep thoughts on superficial Earth processes: Why the mantle matters, 10/2008.

Department of Earth and Atmospheric Sciences, Cornell University, Ithaca NY. The impact of mantle convection on the dynamics of two contrasting continents: North America and Africa, 03/2008.

Géosciences Rennes, Université de Rennes 1, France. Tomography-Based Convection Modelling of Mantle Dynamics Below the African Plate: Implications for Time Dependent Dynamic Surface Topography, 11/2007.

Jackson School of Geosciences, University of Texas at Austin. Mantle Flow Dynamics Below the African Plate, 05/2007.

Department of Physics, University of Colorado, Boulder, USA. Impact of Subcontinental Mantle Flow on North American Dynamics, 10/2006.

University of Belgrade, Institute of Geophysics, Belgrade, Serbia. Seismic and Geodynamic Constraints on Present-Day Dynamics in Earth's Mantle, 05/2006.

Mathematical Institute of Serbian Academy of Sciences and Arts, Belgrade, Serbia. A Numerical investigation of Time-Dependent Thermal Convection in Earth's Interior, 05/2006.

University of Belgrade, Faculty of Astronomy, Belgrade, Serbia. Perturbations in Earth's Orbital Parameters and Earth Rotation Due to Thermal Convection in Earth's Mantle, 05/2006.

National Institute of Geophysics and Volcanology, Rome, Italy. Impact of Subcontinental Mantle Flow on North American Dynamics, 05/2006.

McGill University, Computational Science and Engineering Seminar, Montreal, Canada. Time-Dependent Thermal Convection Dynamics in Earth's Interior: Can we go Backwards in Time? 04/2006.

Virginia Tech, Dept. of Geosciences, Virginia, USA. A Joint Seismic-Geodynamic Exploration of the Impact of Deep Mantle Dynamics on Geological and Geophysical Surface Observables, 01/2005.

Tohoku University, Institute of Mineralogy, Petrology, and Economic Geology, Sendai, Japan. Inferences of the Thermo-chemical Structure of the Continental Tectosphere Derived from High-resolution, Tomography-based Mantle Flow Models: Implications for the North American Cratonic Root, 07/2004.

Kyushu University, Department of Earth and Planetary Sciences, Fukuoka, Japan. Interpreting the Structure and Dynamics of the Deep Mantle with Global Geodynamic Data and Seismic Tomography: Implications of the Lower-Mantle Viscosity Profile, 06/2004.

University of Tokyo, Earthquake Research Institute, Tokyo, Japan. Geodynamic constraints on the structure and dynamics of the deep mantle using global seismic tomography, 05/2004.

Université de Québec à Montréal, GEOTOP, Montréal, Canada. La modélisation de la dynamique du manteau terrestre basée sur la tomographie sismique globale, 03/2003.

University of Michigan, Ann Arbor, Dept. of Geological Sciences, USA. Thermochemical upper-mantle heterogeneity below North America from tomography-based mantle flow models, 01/2003.

University of Chicago, Dept. of Geophysical Sciences, USA. Joint seismic and geodynamic modelling of mantle convection dynamics: Applications to time-dependent reconstructions in the geologic past, 10/2002.

Institut de Physique du Globe de Paris, France. Une interprétation géodynamique de la structure du manteau profond basée sur la tomographie sismique globale, 07/2002.

University of California at Santa Cruz, Earth Sciences Dept., USA. Mantle convection and Milankovic' cycles, 04/2002.

McGill University, Dept. of Earth and Planetary Sci., Montréal, Canada. Geodynamic and seismic constraints on the thermochemical structure of Earth's deep mantle: Implications for convection dynamics, 02/2002.

Université de Québec à Montréal, GEOTOP, Montréal, Canada. Geodynamic and Seismic Study of the Thermochemical Structure of the Continental Tectosphere: A View of the North American Root, 11/2001.

University of Utrecht, Dept. of Earth Sciences, Netherlands. Geodynamic and seismic constraints on deep-mantle dynamics and thermochemical structure, 06/2001.

Institut de Physique du Globe de Paris – Université de Paris VII, France. Hétérogénéités chimiques du manteau déduites à partir de données sismiques et géodynamiques, 11/2000.

Institut de Physique du Globe, Université Louis Pasteur, Strasbourg, France. Étude du profil de viscosité du manteau à partir des données de la convection et du rebond post-glaciaire, 05/1998.

University of Western Ontario, Dept. of Earth Sciences, Canada. Towards an understanding of mantle convection and mineral physics from seismic and geodynamic data, 03/1998.

Institut de Physique du Globe de Paris – Université de Paris VII, France. Perturbations de l'orbite terrestre et convection mantellique, 10/1997.

Oxford University, Dept. of Earth Sciences, UK. Seismic and Geodynamic constraints on 3D structure, vertical flow, and heat transport across the mantle", 02/1997.

University of Utrecht, Dept. of Theoretical Geophysics, Netherlands. Seismic and geodynamic con-

constraints on large-scale vertical flow across the 670 km seismic discontinuity, 06/1995.
University of Karlsruhe, Dept. of Geophysics, Germany. Joint Seismic and geodynamic constraints on large-scale vertical flow across the 670 km seismic discontinuity, 05/1995.
Institut de Physique du Globe, Université Louis Pasteur, Strasbourg, France. Comprendre la convection et la structure 3D du manteau avec les inversions conjointes des données sismiques et géodynamiques, 03/1995.
University of Florence (Università degli Studi), Dept. of Earth Sciences, Italy. Comprendere la dinamica del mantello con la tomografia sismica, 01/1995.
Institut de Physique du Globe de Paris – Université de Paris VII, France. Seismically inferred 3-D earth structure and geodynamics, 05/1994.
University of British Columbia, Dept. of Earth & Ocean Sciences, Canada. Geodynamic implications of seismically inferred global lateral heterogeneity in the Earth’s mantle, 02/1992.
California Institute of Technology, Dept. of Geological & Planetary Sciences, Pasadena, USA. Inferences of deep earth structure from seismic and geodynamic data, 02/1991.

Invited Lectures - Conferences

American Geophysical Union, Fall Meeting, New Orleans, USA. Towards a New Framework for Interpreting Relations Between Mantle Dynamics and Processes at the Earth’s Surface: A Case Study Involving the Deccan Traps, 12/2017
Paleo-CIFAR Meeting, GFZ Helmholtz Research Centre (Berlin), Germany. Convection-driven global variations of dynamic topography since the last interglacial, 05/2017
Collège de France, Paris, France. Panel discussion: “Flow in the Deep Earth”, 12/2016.
American Geophysical Union, Joint Assembly, Montreal, Canada. Seismic and Geodynamic Constraints on Lower-Mantle LSVP: Implications for Mantle Upwellings, 05/2015.
CIDER Workshop on Dynamic Topography and Surface Processes, University of Colorado, Boulder, USA. Global mantle convection dynamics and Earth’s surface topography: Why the deep mantle matters, 04/2015.
COMPRES Annual Meeting, Skamania Lodge, Stevenson, WA, USA. Importance of Mineral Physics for Modeling the 3-D Structure and Dynamics of the Mantle, 06/2014
GSA Meeting, Denver, USA. Impact of buoyant mantle upwellings on the surface evolution of North America: Implications for topography changes in the southwestern and eastern U.S., 10/2013.
GSA Meeting, Pardee Symposium, Denver, USA. Interpreting the evolution of Earth’s surface topography in terms of mantle convection, 10/2013.
9th TOPO-EUROPE Workshop, Certosa di Pontignano (Siena), Italy. Interpreting Earth’s evolving topography in terms of mantle convection: The importance of a joint approach involving seismic tomography and geodynamics, 10/2013.
Crystal2Plate Workshop (Initiative Marie Curie), Fréjus, France. Mantle convection and surface processes, 01/2013.
International Geology Congress, Brisbane, Australia - Keynote presentation. Joint seismic-geodynamic-mineral physical constraints on the relationship between surface tectonics and the deep-seated dynamics of large-scale hot upwellings in the convecting mantle, 08/2012.
Dynamic Topography conference, The Geological Society, Burlington House, London, UK. Global mantle convection dynamics and Earth’s surface topography, 09/2011.
AGU Fall Meeting, San Francisco, USA. New insights into the basin and swell dynamics of Africa driven by whole-mantle convection, 12/2010.
CECAM Workshop on “Computational Mineral Physics: Applications to Geophysics”, ETH, Zurich,

Switzerland. Joint seismic-geodynamic-mineral physical constraints on thermochemical structure, composition and dynamics of Earth's deep mantle, 10/2010.

Canadian Institute for Advanced Research, Calgary, Canada. The Next Big Question – What does the future hold for our planet? 05/2010.

AGU Fall Meeting, San Francisco, USA. Earth's Decelerating Tectonic Plates, 12/2009.

Goldschmidt Meeting, Davos, Switzerland. Joint seismic-geodynamic-mineral physical constraints on heat flux across the core-mantle boundary, 06/2009.

Joint AGU Assembly, Toronto, Canada. Tomography-based, high-resolution modelling of mantle flow under North America: Implications for surface stress in the central and eastern US, 05/2009.

Electric Power Research Institute, Palo Alto, USA. Physical processes occurring in the mantle under the Eastern US and their implications for surface stress and deformation, 02/2009.

AGU Fall Meeting, San Francisco, USA. High-resolution modelling of mantle convective flow below the North American plate, 12/2008.

Canadian Institute for Advanced Research – Thirst For Knowledge event, Vancouver, Canada. What on Earth is Going on Here?, 04/2008.

AGU Fall Meeting, San Francisco, USA. Deep mantle dynamics under the North American continent drives localised flow and stress below the New Madrid Seismic Zone, 12/2007.

AGU Fall Meeting, San Francisco, USA. High resolution modelling of convective flow in the sublithospheric mantle below the African plate, 12/2007.

Young Presidents' Organization – Respect Leadership Series: Frontiers of Science, Toronto, Canada. Terra Infirma: How Forces Deep Inside our Planet Shape Its Surface, 01/2007.

AGU Fall Meeting, San Francisco, USA. Constraining the dynamics of the Earth's deep mantle using seismic, geodynamic and mineral physics data, 12/2006.

Canadian Institute for Advanced Research – Directors' Dinner, Toronto, Canada. What on Earth is Going on Here?, 11/2006.

Canadian Institute for Advanced Research – Appetite for Discovery event, Montreal, Canada. Voyage au Centre de la Terre, 03/2006.

UNAVCO Science Workshop, Denver, Colorado, USA. Influence of Deep Mantle Flow on North American Continental Dynamics, 03/2006.

Research Frontiers in Appalachian Geology and Tectonics, NSF-Earthscope Workshop, Virginia, USA. Present-day dynamics of subcontinental mantle based on seismic tomography: Implications for the North American Tectosphere, 09/2004.

AGU Fall Meeting, San Francisco, USA. Constraints on the thermochemical structure of the Earth's deep mantle using seismic, geodynamic and mineral physics data, 12/2003.

AGU Fall Meeting, San Francisco, USA. Joint modelling of seismic, geodynamic and mineral physics data: Implications for the origin of 3-D density and seismic velocity anomalies in the mantle, 12/2003.

AGU Fall Meeting, San Francisco, USA. Global tomography-based reconstructions of the evolution of 3-D mantle temperature anomalies in the geological past and their dynamical implications, 12/2002.

Royal Society of London: Discussion Meeting, London, UK. Geodynamic and seismic constraints on deep-mantle dynamics and thermochemical structure, 01/2002.

Gordon Research Conference – Interior of the Earth, Mt. Holyoke College, South Hadley, Massachusetts, USA. Geodynamic and seismic constraints on deep mantle dynamics and thermochemical structure, 06/2001.

AGU Spring Meeting - Virtual On-line Session, Boston, USA. Deep Mantle High Viscosity and Thermochemical Structure Inferred From Mantle Flow Models Based on Seismic Tomography, 05/2001.

EGS – XXVI General Assembly, Nice, France. Impact of mantle convection on Earth rotation as constrained by seismic tomography and geodynamic data, 03/2001.

- International OHP/ION Symposium on Long-Term Observations in the Oceans: Current Status and Perspectives for the Future*, Mt. Fuji, Yamanashi Prefecture, Japan. The unique dynamics of the Pacific hemisphere mantle: a seismic and geodynamic study, 01/2001.
- Canadian Institute for Advanced Research – The Earth System Evolution Program*, Ste. Adèle, Québec, Canada. Seismic and geodynamic evidence for large scale chemical heterogeneity in Earth’s mantle, 12/2000.
- Canadian Institute for Advanced Research – The Earth System Evolution Program*, Calgary, Alberta, Canada. A present day example of continental fragmentation from the perspective of mantle convection: the anatomy and dynamics of Africa, 06/2000.
- GeoCanada2000*, Calgary, Alberta, Canada. Inferences of global three-dimensional structure in Earth’s mantle from seismic and geodynamic data, 05/2000.
- GeoCanada2000*, Calgary, Alberta, Canada. Multidisciplinary analyses of deep Earth structure and dynamics, 05/2000.
- AGU Spring Meeting*, Boston, USA. Chemical Heterogeneity in Earth’s Lower Mantle Inferred From High-Resolution Tomography: Implications for Mantle Dynamics, 05/1999.
- EGS – XXIII General Assembly*, Nice, France. Impact of Mantle Convection on Earth Orbit Parameters and Paleoclimate, 04/1998.
- AGU Fall Meeting*, San Francisco, USA. Constraints on Mineral Physics from Joint Modeling of Seismic and Geodynamic Data, 12/1997.
- International Symposium on New Images of the Earth’s Interior through Long-Term Ocean-Floor Observations*, Kazusa, Chiba Prefecture, Japan. Seismic-Geodynamic Constraints on Vertical Mantle Flow: The Importance of Topography at 660 km Depth, 11/1997.
- EGS – XXI General Assembly*, The Hague, Netherlands. Global 3D Mantle Structure and Vertical Mass and Heat Transfer Across the Mantle From Joint Inversions of Seismic and Geodynamic Data, 05/1996.
- EGS – XXI General Assembly*, The Hague, Netherlands. New Inferences of Mantle Viscosity Based Upon Joint Inversions of Long-Wavelength Geoid and Post-Glacial Rebound Data, 05/1996.
- EGS – XXI General Assembly*, The Hague, Netherlands. Geodynamic Implications of Global Scale Seismically Inferred 3D Mantle Structure, 05/1996.
- 4th SEDI Symposium on Earth’s Deep Interior*, Whistler, B.C., Canada. Joint Seismic and Geodynamic Constraints on Large-Scale Vertical Flow Across the 670 km Seismic Discontinuity, 08/1994.
- 20th International Mathematical Geophysics Conference*, Villefranche, France. Poloidal-Toroidal Coupling in Mantle Flow: Importance of Surface Plates and 3D Viscosity Variations, 06/1994.
- Workshop on Global Geodynamics*, Pístina, Bohemia, Czech Republic. The Effect of 3-D Viscosity Variations on Mantle Flow and Convection-Related Surface Observables, 07/1993.
- CGU Meeting*, Banff, Alberta, Canada. Seismically Inferred 3-D Earth Structure & Geodynamics, 05/1993.
- 19th International Conference on Mathematical Geophysics*, Taxco, Mexico. Lateral Viscosity Variations and Poloidal-Toroidal Coupling of Mantle Flow: Theory and Applications, 06/1992.
- CGU/AGU Spring Meeting*, Montreal, Canada. The Kinematics and Dynamics of Poloidal-Toroidal Coupling of Mantle Flow, 05/1992.
- CGU/AGU Spring Meeting*, Montreal, Canada. 3-D Models of Mantle Heterogeneity Derived from Joint Inversions of Seismic and Geodynamic Data, 05/1992.
- 4th Annual IRIS Workshop*, “New Directions in Deep Earth Structure Studies” opening session, Santa Fe, New Mexico, USA. Geodynamic Implications of Seismically Inferred Global Lateral Heterogeneity, 04/1992.
- NATO Advanced Research Workshop*, Erice-Sicily, Italy. Viscous Flow Models of Global Geophysical

Observables: Forward and Inverse Problems, 08/1990.
International Geological Congress, Washington D.C., USA. Seismic Tomography and Mantle Dynamics,
07/1989.