

Emmanuel Dormy

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Research Positions

- 2008-now Senior Researcher (Directeur de Recherche) at the french National Center for Scientific Research (CNRS)
- 2016-now Attached to the Ecole Normale Supérieure (ENS), Department of Mathematics and its Applications. Head of the *Analysis* team (2018-2023).
- 2008-2016 Attached to the ENS, Physics Department. Head of the MAG-team.
- 1999-2008 Junior Researcher (Chargé de recherche) at the CNRS
- 2006 Initiated an interdisciplinary team at the ENS Physics Department, on Magneto-hydrodynamics in Astrophysics and Geophysics (MAG). Head of this team (2006-2016).
- 2004-2008 Attached to the ENS, Physics Department.
- 1999-2003 Attached to the Institut de Physique du Globe de Paris (IPGP).
- 1997-1998 Post-Doctoral researches at the University of California Los Angeles (UCLA, USA).

Professional qualifications

- 2002 Habilitation à Diriger des Recherches (higher doctorate), University of Paris (France).
- Nov. 1997 PhD in Geophysics, with honors at IPG in Paris (France).
- Juin 1994 Masters (DEA) in Mathematics, with honors, Nice Sophia-Antipolis University (France).

Teaching

- 2005-now Professor at the Ecole Normale Supérieure, Paris, France (in Physics and Mathematics).
- 2020-now Professor at SciencesPo, Paris, France.
- 2023 Professor of a unique graduate course at the University of Cambridge, U.K.
- 2008-2020 Professor at Ecole Polytechnique, Palaiseau, France.
- 2021-2022 Professor of the course on “EDP: de la modélisation à la résolution” at ENS (with Isabelle Gallagher).
- 2017-2021 Professor of the course on “Dynamics and Modelling” at ENS (opened to Mathematics and Physics students, with C. Viterbo).
- 2008-2018 Professor of the course on “Computational Physics” at Ecole Normale Supérieure. Became “Numerical Approaches for PDEs” opened to Physics and Mathematics students.
- 2004-2008 Assistant Lecturer (Tutorat) in Fluid Mechanics at ESPCI.

Students

- 2022- Advisor for the PhD thesis of Alan Riquier (expected 2025).
- 2020-2023 Advisor for the PhD thesis of Pierre Saulgeot, co-advised with Laurent Jacquin, Vincent Brion, Nicolas Bonne (ONERA). Defended December 20, 2023.
- 2013-2016 Advisor for the PhD thesis of Florence Marcotte, geophysics. Defended on November 16, 2016.
- 2013-2017 Advisor for the post-doctoral work of Ludivine Oruba (4 years, physics).
- 2013-2014 Advisor for the post-doctoral work of Fernando Garcia (12 months, mathematics).
- 2012-2015 Advisor for the PhD thesis of Raphaël Raynaud, astrophysics, co-advised with Ludovic Petitdemange. Defended on June 26, 2015.
- 2010-2013 Advisor for the PhD thesis of Isamël Bouya, mathematics, co-advised with David Gérard-Varet. Defended on June 10, 2013.
- 2009-2011 Advisor for the post-doctoral work of Martin Schrunner (24 months, astrophysics).
- 2009-2010 Advisor for the post-doctoral work Wietze Herreman (12 months, geophysics).
- 2006-2009 Advisor for the PhD thesis of Ludovic Petitdemange, astrophysics, co-advised with Steven Balbus. Defended on December 11, 2009.
- 2006-2009 Advisor for the PhD thesis of Christophe Gissinger, physics, co-advised with Stephan Fauve. Defended on November 9, 2009.
- 2006-2009 Advisor for the PhD thesis of Laure Goudard, geophysics. Defended on June 19, 2009.
- 2003-2004 Advisor for the post-doctoral work of Alexey Iskakov (15 months, geophysics).
- 2002-2005 Advisor for the PhD thesis of Vincent Morin, geophysics. Defended on December 15, 2005.
- 2003 Advisor for Christopher Finlay (then PhD student in Leeds) European “Marie Curie” fellowship in Paris, 3 months.

Service to Profession

- 2022 Organiser of a 3 month programme at the Isaac Newton Institute (INI) in Cambridge. Principal organiser of the first Workshop during this programme.
- 2021-2023 Co-editor of *Zeitschrift für Angewandte Mathematik und Physik* (ZAMP).
- 2018-2023 Head of the *Analysis* team of the DMA-ENS.
- 2017-... Member of the editorial committee of *Geophys. Astrophys. Fluid Dyn.* (GAFD).
- 2017-2020 Member of the scientific council of GDRI-Dynamo.
- 2014-... Deputy-president of the MesoPSL computing center committee (PSL, Paris).
- 2013-... Expert for the french Ministry of Research.
- 2011-2016 Creator and coordinator of the European Research Network (GDRE) on Dynamo (<http://mhd.ens.fr/GDRE>), organised yearly conference over that period.
- Sept. 2010 Organised with D. Hughes and S. Tobias an international Workshop at IESC.
- Sept. 2009 Organised with M. Proctor (Cambridge) the first “Anglo-French conference on Dynamo Theory” at the University of Cambridge U.K.
- 2009 Organised with S. Fauve and F. Pétrélis a 3 months programme at the Inst. Henri Poincaré (IHP) in Paris.
- 2008-2010 Organiser of the General Physics Colloquium at the Ecole Normale Supérieure.
- 2007-2010 Director of the french GdR-Dynamo (GDR2060).
- 2006 Organised with M. Núñez a session at the AIMS.
- 2003 Organised the international conference “Mathematical Aspects of Natural Dynamos” in Caramulo (Portugal).
- 2001 & 2002 Organised the “Earth core” session at the European Geophysical Society.

Invited Conferences

- Sept. 2024 “*Geophysical and Astrophysical Fluids and Dynamos Meeting*”, Leeds, UK.
- Apr. 2024 Plenary speaker “*British Applied Mathematics Colloquium*” BAMC 2024, Newcastle, UK.
- May 2022 “*Advances in geophysical and astrophysical turbulence*” Isaac Newton Institute, Cambridge, UK.
- Apr. 2021 “*Mathematical problems in fluid dynamics*” at MSRI, San Francisco, USA (via Zoom).
- Apr. 2021 *British Applied Math. Conference (BAMC)*, Glasgow, U.K. (via Zoom).
- Nov. 2017 *PHR2017*, Royal Astronomical Society, Londres, U.K.
- Apr. 2016 *IUTAM Symp. Helicity, structures and singularity in fluid and plasma dynamics*, Italy.
- Dec. 2015 *Princeton Center for Theoretical Science*, Princeton, U.S.A.
- Oct. 2015 5th conference on *Magnetic Field in the Universe*, France.
- Oct. 2014 *Workshop on Geophysical and Astrophysical Turbulence*, Inst. of Pure and Applied Math. (IPAM) UCLA, USA.
- Dec. 2013 *American Geophysical Union*, AGU Fall Meeting, San Francisco, U.S.A.
- Nov. 2013 *RIMS Int. Conf. on Zonal Flows in Geophysical and Astrophysical Fluids*, Kyoto, Japan.
- Aug. 2012 *International Astronomical Union*, IAU XXVIII General Assembly, Beijing, China.
- May 2011 *Princeton Center for Theoretical Science*, Princeton, U.S.A.
- Aug. 2010 *American Geophysical Union*, AGU Meeting of the Americas, Iguazu, Brésil.
- June 2010 *European Physical Society*, EPS 37th Conf. Plasma Physics, Dublin, Irlande.
- Dec. 2009 *Conf. on Magnetohydrodynamic Turbulence*, Indian Inst. of Technology, Kanpur, India.
- May 2009 *Workshop Waves and instabilities in geophys. and astrophys. flows*, France.
- May 2008 *Workshop Modelling geophysical systems by statistical mechanics methods*, Erice, Italy.
- June 2007 *Astronom, Int. Conf. on Numerical Modeling of Space Plasma Flows, 2007*, Paris, France.
- June 2005 *Collège de France*, Conférence invitée, Séminaires de Mathématiques appliquées, chaire du Pr. Pierre-Louis Lions.

Invited Positions

- 2025 *Visiting Researcher*, U.C. Berkeley, visit funded by the France-Berkeley fund, Berkeley, USA, 1 month.
- 2023 *Member in Residence*, Mathematical Science Research Institute (now SLMATH), Berkeley, USA, 1 month.
- 2021 *Visiting Scientist*, Institute for Computational and Experimental Research in Mathematics (ICERM), Boston, USA, 1 month.
- 2018-2022 *Visiting Fellow*, Trinity College, Cambridge, UK (2018: 3 months, 2020: 3 months, 2022: 6 months).

Prizes

- 2023 *Grand Prix Mergier Bourdeix*, prize awarded by the french Academy of Sciences.
- 2009 *La Recherche* prize, received jointly with D. Gérard-Varet, B. Desjardins, D. Bresch, E. Grenier.
- 2000 *Doornbos Memorial Prize*, given by the SEDI committee of SEDI (Study of the Earth’s Deep Interior) of the IAGA (International Union of Geodesy and Geophysics).
- 1997 Lavoisier grant from the french Ministry of Foreign Office.