

Laboratoire de Physique de l'Ecole Normale Supérieure.
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Personal Information

Name: Denis BERNARD
Date of birth: June 09, 1961
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Professional Preparation

- Habilitation, Physics, University Paris XI. 1993.
- Ph.D., Theoretical Physics, University Paris XI. 1987.
- Agrégation de Sciences Physiques, Rank: 2nd. 1983.
- Ecole Normale Supérieure, Physics. 1980-1985.

Appointments

2015-present: Directeur de recherches, classe exceptionnelle, C.N.R.S.
2003-2015: Directeur de recherches, 1st classe, C.N.R.S.
1995-2003: Directeur de recherches, C.N.R.S.
1988-1995: Chargé de recherches, C.N.R.S.
1988-1989: Post-doctoral Fellow, School of Math., Institute for Advanced Studies, Princeton.
1987-1988: Post-doctoral Fellow, Physics Department, Princeton University, USA.
In parallel:
2019-present: Laboratoire de Physique de l'Ecole Normale Supérieure (LPENS), ENS-Paris.
2006-2019: Laboratoire de Physique Théorique (LPT-ENS), Ecole Normale Supérieure de Paris.
2002-2016: Professor (part-time) at Ecole Polytechnique, France.
1995-1996: Institut des Hautes Etudes Scientifiques (I.H.E.S), France.
1989-2005: Institut de Physique Théorique (IPhT), Saclay, France.

Awards

- C.N.R.S. Silver Medal, 2004.
- Paul Langevin Prize from the Société Française de Physique, 1998.
- C.N.R.S. Scientific Excellence Award, 2009-2013, 2014-18 and 2020-24.

Synergistic Activities

- LPENS deputy director, ENS-Paris, 2019-present.
- Member of the Scientific Council of the SwissMAP Research Station, Switzerland, 2022-present.
- Member of the Recruitment Commission of the Physics Department of the Ecole Polytechnique, France, 2022-present.
- Member of the Scientific Advisory Committee of the Simons Center for Geometry and Physics, Stony Brook, USA, 2021-present.
- Member of the Advisory Scientific Board of the Erwin Schrödinger Institute, Vienna, 2013-2018.
- LPT-ENS vice-director, Paris, 2010-2014.
- Member of the Stat.Phys.25 Steering Committee, Seoul, 2012.
- Member of the Board of the Physics Department at ENS, Paris, 2011-present.
- Member of the Comité National de la Recherche Scientifique (CoNRS), France, 2004-2008.
- Scientific consultant for the French research minister DGRI, Paris, 2009-2012.
- Member of the Administration Board of the Institut H. Poincaré, Paris, 2004-2009.
- Member of the Scientific Council of the Fédération de Recherche FRIF, Paris, 2009-2013.
- Member of the Scientific Council of the IPhT-Saclay, 1997-1999 and 2001-2005.
- Grant referee: INFN (Italy), ISF (Israel), ANR (France), NWO (Netherlands), DFG (Germany), etc.
- Member of various evaluation committees (French or foreign laboratories).
- Member of various search or recruiting committees (in France or abroad, in physics or in math).
- Member of various Ph.D. and Habilitation juries.

Thematic Mobility

During my career, I worked on different areas of theoretical physics including: Turbulent systems and turbulent transports; Random geometry and random spatial processes; Conformal field theory, integrable systems and applications; Out-of-equilibrium quantum systems.

Publications

A complete list of publications is available on my homepage.

Publications posterior to 1991 (refs.[34,84] are missing) can be found at:

https://arxiv.org/a/bernard_d_1.html

Bibliometry (2021, Web of Science/Google Scholar): articles=125, citations=5178/9405, h=43/55.

Memberships of Editorial Board

- Associate Editor of the Journal of Statistical Physics, 2018-present.
- Member of the Editorial Board of the Journal of Physics A [Letter], 2014-present.
- Member of the Editorial Board of the Annales Henri Poincaré (phys. math.), 2012-2019.
- Member of the Editorial Board of Journal of Statistical Mechanics (theory and experiment), 1999-present.

Grants & Contracts

- Contract ANR-21-CE40-0003, "CFT: constructive aspects and integrability", 2022-26, Member, 518.832 €.
- Contract ANR-20-CE47-0014, 2021-25, "Stochastic quantum evolutions", Co-PI, 351.864 €.
- Contract ANR-14-CE25-0003, "Stochastic methods in quantum mechanics", 2014-19, Co-PI, 230.000 €.
- Contract ANR-2010-BLANC-0414, "Quantum transport on low dimensions", 2010-14, Member, 187.000 €.
- Contract ANR-BLAN06-3-134462, "Stochastic Loewner Evolutions and applications", 2006-10, PI, 270.000 €.
- EU network, contract HPRN-CT-2002-00325, 2002-06. Correspondent.

Thesis & Post-doctoral Advising

Ph.D. Students (8):

Didina Serban (Ph.D. in 1996, now researcher at CEA), Nicolas Regnault (Ph.D. in 2001, now DR at CNRS), Loic Estève (2006), Christian Hagendorf (part time, Ph.D. in 2008, now Prof. at UCL Louvain), Tristan Benoist (Ph.D. in 2014, now CR at CNRS), Antoine Tilloy (Ph.D. 2016, now Ass. Prof. at MinesParisTech), Tony Jin (Ph.D. in 2019, now post-doc at Univ. Geneva), Ludwig Hruza (Ph.D. started in 2020).

Post-doctoral Fellows (6):

Kalle Kytölä (2006-2008, now Prof. at Aalto Univ.), Luigi Cantini (2008-2010, now Ass. Prof. at Cergy Univ.), Guillaume Palacios (2011-2013, CEO at ZEBRIA), Jacopo Viti (2012-2014, now Ass. Prof. at UFRN Natal Univ.), Andrea De Luca (2012-2014, now CR at CNRS), Ohad Shpielberg (2016-2018, now Lecturer at Haifa Univ.).

Teaching

- At various thematic workshops or schools, on different topics.
- At the ENS/EDPIF Master: Statistical Field Theory and Applications, 2016-2021.
- At the ENS: Co-organisation of the math-physics mixed cursus, 2011-2013.
- At the Ecole Polytechnique (France): Quantum Mechanics, Statistical Physics, Variational Principle, Special Relativity, Group Theory, 2002-2016.
- At the IPhT-Saclay: Integrable systems (1995), Turbulence (1999), Growth processes (2005).

Organization of Scientific Meetings (recent)

- GGI school on "Statistical Field Theory", Firenze, Italy, Member of organising or scientific board since 2015.
- Workshop on "Random Quantum Channels", Institut H. Poincaré, Paris, March 2015.
- Program "Mathematical aspects of quantum integrable models in and out of equilibrium", Newton Institute, Cambridge, UK, Jan. 2016.
- Summer School on "Stochastic Methods in Quantum Mechanics", Autrans, France, July 2016.
- Workshop on "Quantum Thermodynamics and Resource Theory", Institut H. Poincaré, Paris, Mai 2017.
- Conference on "From Field Theory to Non-Equilibrium", Nice, June 2017.
- School "SFT-Paris-2019", in partnership with GGI-Firenze, Institut H. Poincaré, Paris, Sept. 2019.
- Program on "Systems Out-of-Equilibrium: Interplay between Statistical, Quantum and Disorder Dynamics", Institut H. Poincaré, Paris, Fall 2020.
- Conference on "Quantum stochastic dynamics", Porquerolles, France, July 2022.

Talks & Month-long Visits (recent)

- Invited or plenary talks in over 150 meetings:
 - Invited contributions to conferences/workshops/schools, 3 to 5 per years, in average.
- Arnold Sommerfeld Summer Lectures, LMU Munich, 2008.

- Stat.Phys.24 invited speaker, Cairns, Australia, 2010.
- Simon Lectures, Mathematics Dept., Berkeley, 2012.
- Lectures series of the Kadanov Center for Theoretical Physics, Univ. of Chicago, 2015.
- Artic School at Kilpisjarvi, Univ. of Helsinki, Finland, 2016.
- May 2007: Institute for Pure & Applied Mathematics, (IPAM), UCLA, Los Angeles, USA.
- May 2009: James Franck Institute, Chicago Univ., USA.
- March 2012: Mathematical Science Research Institute (MSRI), Berkeley Univ., USA.
- Sept. 2012: Simon Center for Geometry and Physics (SCGP), Stony Brook Univ., USA.
- March 2015: First Visiting Professor at the Kadanov Center for Theoretical Physics, Chicago Univ., USA.

Collaborators

O. Babelon (LPTHE, Paris), M. Bauer (IPhT, Saclay), G. Boffetta (Turin), A. Celani (Nice Univ., now ICTP), A. De Luca (Cergy Univ.), J. De Nardis (Cergy Univ.), B. Doyon (King's College), G. Falkovich (Wiemann Inst.), G. Felder (Dept. Math., ETH-Zürich), K. Gawedzki (IHES, then ENS-Lyon), D. Haldane (Princeton Univ.), A. Kupiainen (Dept. Math., Helsinki Univ.), K. Kytola (Dept. Math., Aalto Univ.), A. LeClair (Cornell Univ.), P. Le Doussal (ENS, Paris), M. Medenjak (Univ. Geneva), V. Pasquier (IPhT, Saclay), Y. Pautrat (Dept. Math., Orsay), F. Petruccione (Durban Univ.), L. Piroli (ENS, Paris), F. Smirnov (LPTHE, Paris), J. Thierry-Mieg (NIH Washington), etc.