Curriculum Vitae

Dmitry Dolgopyat

Education

Fall 1989–Spring 1994	Diploma in Mathematics, Moscow State University	
Fall 1994–Spring 1997	Ph.D. in Mathematics, Princeton University	advisor: Yakov Sinai
Fall 1997–Spring 1999	Research Fellow in Mathematics, UC Berkeley	mentor: Marina Ratner

Employment

Fall 2022–present	Distinguished Professor, University of Maryland
Fall 2007–Spring 2022	Professor, University of Maryland
Fall 2006–Spring 2007	Professor, Penn State University
Fall 2002–Spring 2006	Associate Professor, University of Maryland
Fall 1999–Spring 2003	Assistant Professor, Penn State University

Short visits

October 1997	Manchester University, United Kingdom
January 1999	Centro de Investigacion en Matematicas, Guanajuato, Mexico
November 1999	Hebrew University, Jerusalem, Israel
June 2000, August 2003	Newton Institute, Cambridge, United Kingdom
August 2000, January 2012	Instituto de Matematica Pura e Aplicada, Rio de Janeiro, Brasil
May 2001	Northwestern University, Evanston, Illinois
March 2002	Scuola Normale, Pisa
May 2002	Ecole Polytechnique
June 2002	ETH, Zurich
September 2002–April 2003	IAS, Princeton
May 2003	CalTech
January 2004	RIMS, Kyoto
May–July 2005	IHP, Paris
June 2006, January 2009, June 2012	Paris-6
June 2007	Paris-13
June 2008	Erwin Schrödinger Institute, Vienna
July 2009, May 2017	CIRM, Luminy, France
September 2010–June 2011	University of Toronto/ Fields Institute
February 2013	University of Bristol
June 2013	EPFL, Lausanne, Switzerland
January 2015, 2016, 2018, 2020, June 2023	Weizmann institute, Israel
February 2016	ICERM, Providence, RI

Academic awards

Fall 1992–Spring 1993	Petrovsky Fellowship
June 1994	Diploma with Highest Honors (Moscow State University)
Fall 1996–Spring 1997	Charlotte Elizabeth Procter Fellowship
Fall 1997–Spring 1999	Miller Fellowship
Fall 2000–Spring 2002	Sloan Fellowship
2009	Michael Brin Prize in Dynamical Systems
2009	Annales Henri Poincare Distinguished paper award
2020	Foreign member, Academia Europea

Professional Service.

Bolyai Prize Committee	2010, 2015
Brin Center Advisory Board	2022–present

Thematic semesters coorganized.

Dynamics and Transport in Disordered Systems, Fields Institute	Spring 2011
Hyperbolic Dynamics, Large Deviations & Fluctuations, Bernoulli Center, Lausanne	Spring 2013
Dimension and Dynamics, ICERM, Providence, RI,	Spring 2016
Probabilistic Methods in Geometry, Topology & Spectral Theory, CRM, Montreal	Fall 2016
Partial Hyperbolicity, Brin Mathematics Research Center	May 2023

Conferences coorganized.

Maryland-PennState Dynamics Meeting, College Park, MD	March 05, 06, 08 April 09, 12, 15, 17, 24
Chaos and Disorder in Mathematics and Physics, Bressanone, Italy	September 05
Stochastic & Dynamics: Asymptotic Problems, College Park, MD	May 10, 13
Hyperbolic Dynamical Systems in the Sciences Corinaldo, Italy	June 10
Probability in Dynamics, Rio de Janeiro	May 14
ICM speaker selection committee, Dynamical Systems section	August 14
AMS Session *Asymptotic Problems for Stochastic Processes & PDEs,* Washington, DC	March 15
New Directions in Statistical Physics & Dynamical Systems, Princeton	December 15
Seminar on Stochastic Processes, College Park, MD,	March 16
Statistical Properties of Nonequilibrium Dynamical Systems, Shenzhen, China	July 16
School & Conference on Hyperbolic Dynamics, Pisa–Trieste, Italy	June 17
New Developments in Open Systems, Banff	March 18
DinAmicI VII, Varese, Italy	June 22
Probabilistic techniques for random and time-varying dynamical systems, Luminy	October 22
Asymptotic Problems in Probability and PDE, College Park, MD	October 22
Stability and rigidity in dynamical systems, beyond classical KAM theory, Paris	June 24
Advances in Dynamics, Shenzhen, China	August 24
Hamiltonian Dynamics at Maryland	February 25

Editorial Boards.

The Journal of Modern Dynamics	2006–2012
Nonlinearity	2006–2017
Ergodic Theory and Dynamical Systems	2007–
Annales Henri Poincare	2013–2023
Journal AMS	2016–2023

Students.

Jacopo de Simoi	graduated Fall 2009
Cristian Tomasetti (coadviser Doron Levi)	graduated Fall 2010
Jinxin Xue (coadvisor Vadim Kaloshin)	graduated Spring 2013
Fabian Contreras	graduated Summer 2014
Kasun Fernando	graduated Summer 2018
Jing Zhou	graduated Summer 2020
Phil Wertheimer	graduated Fall 2021
Max Auer (coadvisor Adam Kanigowski)	current

Exchange students mentored

Binggui Zhong	Fall 2007–Spring 2009
Sixu Liu	Fall 2017–Fall 2018

Postdocs.

Paul Wright	Fall 2007–Spring 2010
Vaughn Climenhaga	Fall 2010–Spring 2011
Peter Nandori	Fall 2015–Spring 2019
Alex Blumenthal	Fall 2016–Spring 2019
Davit Karagulyan	Spring 2019–Fall 2020
Yeor Hafouta	Fall 2022–Spring 2023
Jonathan de Witt	Fall 2022-Spring 2025

Selected presentations.

Dynamics Beyond Uniform Hyperbolicity (3 hour minicourse), Evanston, June 2001
Special trimester on dynamical systems (4 hour minicourse), Pisa, March 2002
International Congress in Math. Physics, invited talk, Lisbon, August 2003.
Secial trimester *Time at work* (18 hour minicourse), Paris, May-July 2005
International Congress of Mathematicians, invited talk, Madrid, August 2006
Lunteren Stochastics (2 hour minicorse), Lunteren, Nitherlands, November 2006
Canadian Math Society Winter Meeting, plenary talk, Toronto, December 2006
School on Dynamics & Complexity (4.5 hour minicourse) Montevideo, May 2008
Program on Hyperbolic Dynamics (3 hour minicourse), Vienna, June 2008
Dynamics Beyond Uniform Hyperbolicity (3 hour minicourse), Beijing, August 2009
International Congress in Math. Physics, plenary talk, Aalborg, Denmark, August 2012.
DANCE (Dynamics, Attractors, Nonlinearity, Chaos & Stability) Winter School (9 hour minicourse), Murcia, Spain, January 2013
Maryland Summer School in Dynamical Systems, (8 hour minicourse), August 2014
Workshop *Statistical Properties of Dynamical Systems,* Shenzhen, China (6 hour minicourse) July 2016
School on *Hyperbolic Dynamics*, Pisa, Italy (4.5 hour minicourse), June 2017.
Anatole Katok Distinguished Lecture series, Penn State (3 hour minicourse), February 2024
School on *Number Theory and Dynamics*, Krakow, Poland (3 hour minicourse), May 2024
School on School on *Probabilistic aspects of hyperbolic dynamical systems*, Budapest, Hungary (4.5 hour minicourse) August 2024

Overall in 21st century: 210 talks in 22 countries

Publications.

For more information see **http://www.math.umd.edu/~dmitry/papers.html**

(1) *Bounded orbits of Anosov flows*, Duke Math. Journal **87** (1997), 87-114.
(2) *Decay of correlations in Anosov flows*, Ann. Math., **147** (1998), 357-390.
(3) *On differentiability of SRB states for partially hyperbolic systems,* Inv. Math. **155** (2004) 389–449.

(4) *Sample path properties of stochastic flows,* (with V. Kaloshin & L. Koralov), Annals of Prob. **32** (2004) 1-27.
(5) *Limit Theorems for partially hyperbolic systems,* Trans. AMS **356** (2004) 1637–1689.
(6) *A limit shape theorem for periodic stochastic dispersion,* (with V. Kaloshin & L. Koralov), Comm. Pure & Applied Math. **57** (2004) 1127-1158.
(7) *Prelude to a kiss,* in *Modern Dynamical Systems,* (ed. M. Brin, B. Hasselblatt & Ya. Pesin) Cambridge University Press, 2004, 313–324.
(8) *On simultaneous linearization of diffeomorphisms of the sphere* (with R. Krikorian) Duke Math. J. **136** (2007) 475–505.
(9) *Fermi Acceleration,* Contemporary Math. **469** (2008) 149–166.
(10) *Recurrence properties of Lorentz gas,* (with D. Szasz & T. Varju) Duke Math. J. **142** (2008) 241–281.
(11) *Limit Theorems for Locally Perturbed Lorentz processes,* (with D. Szasz & T. Varju) Duke Math. J. **148** (2009) 459–499.
(12) *Brownian Brownian Motion-1,* (with N. Chernov) Memoirs AMS **198** no. 927 (2009).
(13) *Galton board: Limit Theorems and Recurrence,* (with N. Chernov) J. AMS **22** (2009) 821-858 (annoncement: Phys. Rev. Lett. **99** (2007) # 030601).
(14) *Repulsion from resonances,* Memoirs of French Math. Soc. **128** (2012).
(15) *Averaging of incompressible flows on 2 dimensional surfaces,* (with L. Koralov), J. AMS. **26** (2013) 427–449.
(16) *Deviations of Ergodic sums for Toral Translations I: Convex sets,* (with B. Fayad) GAFA **24** (2014) 85–115.
(17) *Non equilibrium density profiles in Lorentz tubes with thermostated boundaries,* (with P. Nandori) Comm. Pure & Applied Math. **69** (2016) 649–692.
(18) *Noncollision singularities in the planar two-center-two-body problem,* (with J. Xue) Comm. Math. Phys. **345** (2016) 797–879.
(19) *A Local Limit Theorem for sum of independent random vectors,* El. J. Prob. **21** (2016) paper 39.
(20) *On mixing and the local central limit theorem for hyperbolic flows,* (with P. Nandori) Erg. Th. Dynam. Sys. **20** (2020) 142–174.
(21) *Deviations of Ergodic sums for Toral Translations II: Boxes,* (with B. Fayad) Publ. IHES. **132** (2020) 293–352.
(22) *Infinite measure mixing for some mechanical systems,* (with P. Nandori) Adv. Math. **410** (2022), paper 108757.
(23) *Flexibility of statistical properties for smooth systems satisfying the central limit theorem,* (with C. Dong, A. Kanigowski & P. Nandori), Inv. Math. **230** (2022) 31–120.
(24) *Local limit theorems for inhomogeneous Markov chains,* (with O. Sarig), Springer Lect. Notes **2331** (2023).
(25) *A Berry-Esseen theorem and Edgeworth expansions for uniformly elliptic inhomogeneous Markov chains,* (with Y. Hafouta) Probab. Theory Related Fields **186** (2023) 439–476.
(26) *An error term in the Central Limit Theorem for sums of discrete random variables,* (with K. Fernando) IMRN **21** (2023) 18664–18713.
(27) *Exponential mixing implies Bernoulli* (with A. Kanigowski & F. Rodriguez Hertz), Ann. Math. **199** (2024) 1225–1292.
(28) *Dispersing Fermi–Ulam Models,* (with J. De Simoi) to appear in Ann. Henri Lebesgue.
(29) *Local limit theorems for expanding maps* (with Y. Hafouta), preprint.