

Curriculum Vitae

Peter Constantin

Education

B.A.: University of Bucharest, Faculty of Mathematics and Mechanics, 1974.
M.A. (summa cum laude): University of Bucharest, Faculty of Mathematics and Mechanics 1975.
Ph. D. : The Hebrew University of Jerusalem, 1981.
Advisor: Shmuel Agmon, The Hebrew University of Jerusalem.

Appointments

Assistant Professor, The University of Chicago, 1985–1988.
Professor of Mathematics, The University of Chicago, 1988–2005.
Louis Block Professor, The University of Chicago, 2005–2009.
Louis Block Distinguished Service Professor, The University of Chicago, 2009-2011.
Chair, Department of Mathematics, The University of Chicago, 2007-2011.
William R. Kenan, Jr. Professor of Mathematics and Applied and Computational Mathematics, Princeton University, 2011 -2015.
Director, Program in Applied and Computational Mathematics, Princeton University, since February 1, 2012.
John von Neumann Professor of Mathematics and Applied and Computational Mathematics, Princeton University, since July 1, 2015.

Students

Mathematics: M. Pugh, S. Resnik, J. Wu, C. Hallstrom, M. Kratka, A. Oberman, B. Winn, G. Iyer, A. Zarnescu, A. Tarfulea, M. Kliegl, J. La, F. Pasqualotto, F-N Lee.
Physics (committee member): G. Vasconcelos, J. Wang, E. Grossman, M. Mungan, N. Schoerghofer, S. Wunsch, I. Seggev.
Foreign: (exchange, or long visit): C. Royo (France), F. Ramos (Brazil).

Postdoctoral associates

A. Bertozzi, M. Brenner, A. Cheskidov, D. Cordoba, T. Drivas, T. Elgindi, D. Ginsberg, P. Gordon, F. Gancedo, A. Kiselev, I. Kukavica, E. Kirr, M. Lewicka, L. Mahadevan, H. Q. Nguyen, Q. Nie, V. Putkaradze, L. Ryzhik,

A. Schenkel, L. Silvestre, W. Sun, E. Titi, S. Venkataramani, V. Vicol, A. Zlatos.

Honors

Alfred P. Sloan Research Fellow, 1986–1990.

Fellow of the Institute of Physics, London (2004).

ISI Highly Cited

SIAM Fellow (2010).

Fellow of the American Academy of Arts and Sciences (2010).

Inaugural Fellow AMS (2012).

Member of the National Academy of Sciences (2021).

Congress Talks

International Congress of Mathematical Physics, Paris, 1994.

International Congress of Mathematicians, Zurich, 1994.

International Congress of Industrial and Applied Mathematics, Edinburgh 1999.

Lectures

AMS Invited Plenary Address, Denton, 1990, Equadiff '93 Bratislava, Gran' Finale, Como 1993, LMS/IOP, London 1993, The Institute Seminar, Newton Institute, Cambridge, 1995, Dynamical Systems and PDE, Hangzhou, China, 1996, Snowbird, Utah, 1997, Barenblatt 70, Rome Italy, 1997, Kraichnan 70, Santa Fe, 1998, Dynamics Days, Atlanta, 1999, The Institute Seminar, Newton Institute, Cambridge, 1999, IUTAM Symposium, Hayama (Japan), 1999, Julian Cole - Margaret Darrin Memorial Lecture, RPI, 2000, UNM-Los Alamos Distinguished Lecture Series, March 2000, Frontiers in Mathematics, distinguished lecture series, Texas A&M, 2000, Joint AMS-SMF meeting Lyon (France), July 2001, IUTAM symposium, Zakopane (Poland), September 2001, RIMS Colloquium, Kyoto (Japan), October 2001, Academia Sinica Colloquium (Beijing) December 2001, Euler and Navier-Stokes symposium, (main lecturer, 3 lectures) Shanghai, December 2001, George Batchelor Lecture, DAMTP, Cambridge (UK), May 2002, Laboratoire Jacques-Louis Lions, Paris, October 2002, CIME Lectures, Martina Franca, September 2003, Kolmogorov School, Trieste, September 2003, Slemrod Conference, Madison, April 2004, AIM Conference, Pomona, June 2004, Brezis Conference, Paris, June 2004, Weizmann Multiscale, Rehovot, July 2004, CIM Lectures, Lisbon July 2004, Istanbul, September 2004, IUTAM Symposium, Kyoto, October 2004. IGERT distinguished lectures, Columbia, March 2005. MRC, Montreal, May 2005. Los Alamos, NM, July 2005. MSRI, Berkeley, September

2005. Warwick University, Coventry UK, September 2005. Paul Sabatier University, Toulouse, May 2005. Yale University, November 2005. Penn State, December 2005. Basilfest, Los Alamos, January 2006. Pauli Institute, Vienna March 2006. University of Maryland, April 2006. Vanderbilt, April 2006. Brown, April 2006. SIAM Annual Meeting, Boston, July 2006. Ecole Polytechnique Federale de Lausanne, July 2006. IWNET 2006, Rhodes, Greece, September 2006. CSCAMM Maryland, October 2006. AMS Sectional Meeting, Arkansas, Nov. 2006. Agmon 85, Jerusalem, January 2007. Euler Symposium, Sungkyunkwan University, Suwon (Korea), May 2007. Euler Symposium, Euler institute St. Petersburg (Russia) May 2007. Euler Symposium, Aussois (France), June 2007. D2H Fest, Lausanne, July 2007. Saut Fest (Paris), September 2007. Dupont Fest (Chicago) September 2007. Trinity College, Dublin, October 2007. Midwest PDE Seminar, Chicago, November 2007. Washington University, St. Louis, February 2008. Collège de France, Paris, March 2008. Florida State University, Tallahassee, March 2008. Bloomington, Indiana, April 2008. Kavli Institute Beijing, May 2008. ICPAM Beijing, May 2008. Peking University, Beijing, May 2008. Mathematics Institute, Chinese Academy of Science, Beijing, May 2008. SIAM Annual Meeting, San Diego, July 2008. IMA Singularities, Minneapolis, July 2008. UF Rio de Janeiro, August 08. Scuola Normale Superiore, Pisa, September 2008. Oxford University, Oxford, October 2008. Isaac Newton Institute, Cambridge, October 2008. Kyoto University, November 2008. U. Texas, Blumberg Lecture, March 2009. Exeter, UK, March 2009. AIM Workshop, Palo Alto, April 2009. Ch. Fefferman Fest, Princeton, May 2009. J. Gibbon Fest, Imperial College London, May 2009. A. Majda Fest, Courant Institute New York, May 2009. Institut Henri Poincaré, Paris, June 2009. Oberwolfach, July 2009. PIMS, Vancouver, August 2009. IMA Complex Fluids, October 2009, AMS Regional, Waco Texas, October 2009, Darmstadt, October 2009. Northwestern, March 2010. Warwick, July 2010. Weizmann Institute, Rehovot, July 2010. CIME Lectures, Cetraro, September 2010. ICMS, Edinburgh, September 2010. Princeton, October 2010. ICMAT, Madrid, November 2010. AMS, New Orleans, January 2011. Aziz Lecture, UMD, February 2011. USC, February 2011. University of Houston, March 2011. Georgia Tech, March 2011. Levermore 60, Madison Wisconsin, May 2011. Berestycki 60, Paris, June 2011. SISSA, Trieste, July 2011. Levico Terme, September 2011. SIAM, San Diego, November 2011. Seville, Spain, June 2013. Rothschild Visiting Professor Lecture, Isaac Newton Institute, Cambridge, June-July 2013. Mathematical Congress of

Americas, August 2013. Stanford, August 2013. DiPrima lecture, RPI, September 2013. Amick Lectures, Chicago, October 2013. Clifford Lectures, Tulane, November 2013. First CAU Distinguished Lecturer, December 2013, Seoul, Korea. Penn State, December 2013. JMM Baltimore, January 2014. Oxford, February 2014. Toulouse, February 2014. Rutgers, March 2014. Tadmor Fest, Bethesda MD, April 2014. IMPA, Rio De Janeiro, May 2014. Weizmann Institute, Rehovot, June 2014. AMFM Conference, Lisbon, June 2014. AIMS Madrid, July 2014. CBMS Conference, Oklahoma State, July 2014. IPAM, UCLA, September 2014. Bad Boll, October 2014. Inaugural Distinguished Lecture, UC Davis, January 2015. Bernoulli Lecture, EPFL Lausanne, June 2015. CIRM, Leviso Terme, July 2015. Oberwolfach, August 2015. Jerusalem, September 2015. Oxford (Clay), September 2015. Rice U, October 2015. Chicago, October 2015. CMU, Pittsburgh, December 2015. SIAM Scottsdale, December 2015. Pauli Institute, Vienna, December 2015. AMS, Seattle, January 2016. Klainerman 65, Princeton, January 2016 Bardos Fest, UT Austin, February 2016. Foias Lectures, Texas A&M, April 2016. Shanks conference, Vanderbilt, May 2016. Doering 60, BYU, May 2016. Sell Memorial Conference, Minnesota, June 2016. Courant Institute Colloquium, NYC, December 2016. IPAM Turbulence workshop, Los Angeles, January 2017. University of Virginia, Charlottesville, May 2017. AMS Sectional Meeting, Hunter College NYC, May 2017. ICMS Conference on Probabilistic Aspects of PDE, Edinburgh, June 2017. Workshop on Fluids, Basel, June 2017. Simons Center, SUNY, Stony Brook, October 2017. Stat. Mech. Meeting, Rutgers, December 2017. Workshop on Fluids, Seville, June 2018. SCAPDE, U.C. San Diego, June 2018. BIRS workshop on Singularities, Banff, August 2018. SEARCDE, UNG, October 2018. CIRM, Marseille, December 2018. Wolfgang Pauli Institute, Vienna, December 2018. Mathematics Institute, Oxford, March 2019. Euler-Navier-Stokes workshop, Harvard, March 2019. Brauer Lectures, UNC, May 2019. Workshop on fluids, Budapest, June 2019. CIME Summer School, Cetraro, June 2019. ICMAT Summer School, Madrid, June 2019. Majda Fest, PIMS, July 2019. Fields Institute Toronto, (remote) September 2020. CIRM Marseille (remote), October 2020. Shanghai PDE (remote), December 2020. MSRI (remote), February 2021. Hong-Kong (remote) May 2021. Banff (remote), July 2021. Fields Institute (remote), September 2021. Rio de Janeiro (remote), September 2021. INI Cambridge (remote), January 2022. IAS April 2022. Rutgers (remote), June 2022. Shanghai (remote), June 2022. Simons center for Geometry and Physics, June 2022. ETH, July 2022. War-

saw (Bardos Fest) August 2022. Stony Brook (remote) (Ebin Fest) January 2023. Nonlinear Waves and Coherent Structures, Online Colloquium, January 2023. Simons Annual Meeting Panel, Princeton, March 2023. Midwest PDE, Notre Dame, May 2023. Courant Institute (Majda Memorial) May 2023. Math+ X Symposium (Hella, Iceland) June 2023. Leipzig (Vasseur Fest) June 2023. Summer School, Brin Center UMD, July 2023. Hong Kong (remote) October 2023. Campinas (Brazil, remote) (Nussenzweig Fest), October 2023. John Lynch Lecture, Notre Dame University, March 2024. Avron Douglis Lecture, University of Maryland, April 2024. Sverak Fest, University of Minnesota, May 2024. Oberwolfach Seminar, May 2024. Brooke Benjamin Lecture, Oxford, November 2024. Bath Seminar, November 2024.

Visits and Visiting Appointments

Courant Institute of Mathematical Sciences (New York), Mathematical Sciences Research Institute (Berkeley), Max–Planck–Institut (Bonn), The Institute for Advanced Study (Princeton), The Weizmann Institute of Science (Rehovot), Université de Paris–Sud, Institut Mittag–Leffler (Djursholm), Isaac Newton Institute for Mathematical Sciences, (Cambridge), École Normale Supérieure, (Paris), IHES, (Bures-sur-Yvette), RIMS (Kyoto), Schrödinger Institute (Vienna), Pauli Institute, (Vienna), Bernoulli Institute (Lausanne), Institut Henri Poincaré (Paris).

Professional Activities

Nonlinearity, (1992 -1998 editorial board member, Editor-in-Chief 1998-2004), AMS Proceedings of Symposia in Applied Mathematics (chairman, 1993-2004). SIAM Journal on Applied Mathematics, (1996-1998). Journal of Statistical Physics, (1997-1999). Mathematical Physics Electronic Journal, (from 1995). Communications in Mathematical Physics, 2000-2012. Nonlinear Science, (from 2012). Journal of Turbulence, (from 2003), Archive for Rational Mechanics and Analysis, (from 2014) Annals of PDE, co-editor in chief (from 2015). Collaborator, Los Alamos National Laboratories, (1985-2000), Midwest PDE Seminar, The University of Chicago, (organizer, 1992), Isaac Newton Institute for Mathematical Sciences, University of Cambridge, half-year program (co-organizer, 1995), SIAM Minisymposium, Snowbird, Utah (co-organizer, 1999), IUTAM Symposium, Japan, (co-organizer, 1999), Institute for Theoretical Physics, Santa Barbara, half-year program, (co-organizer, 2000), Oberwolfach meeting (co-organizer, 2000), International Congress of Mathematical Physics, London, (PDE session co-organizer, 2000) Midwest PDE Seminar, Univ. of Chicago (organizer, 2000), Visiting Review

Committee, Georgia Institute of Technology, (member, October 2000), Summer school on fluid mechanics, UIMP, Santander (Spain) Director, August 2002), SIAM Minisymposium on PDE, Snowbird, May 2003, co-organizer, SIAG Dynamical Systems, advisory board 2001-03, Instructional Conference on Mathematical Analysis of Hydrodynamics, Edinburgh, June 2003, co-organizer, Visiting Review Committee, University of Toronto (December 2004), Banff Workshop, March 2006, co-organizer, Visiting Review Committee, University of Virginia, September 2006, AIM workshop 2009, co-organizer, IMA 2009-2010 special year in complex fluids, co-organizer. AMS Bocher prize committee, 2007-8. Visiting review committee, UCLA, 2011. Board of Governors, Stevanovich Center, University of Chicago, until the end of 2011. AMS Steele Prize committee, 2009-11. Coorganizer, AMS Mathematical Research Communities, Snowbird, Utah, June 2013. Member of the SIAM Fellows Selection Committee, 2012-2014 and 2015-2017. Member AMS Nominating Committee 2014-2017. Lagrange Prize selection committee, ICIAM, 2014. Lucasian Chair Elector, 2014. Visiting review committee, Rice University 2019. Oberwolfach meeting co-organizer, 2019. Visiting review committee, (remote) ICMAT Madrid, 2021. Visiting committee chair (remote) ETH, Zurich, November 2022. AMS Birkhoff Prize Committee (2023). Oberwolfach Seminar co-organizer (2024). NSF and DOE panels, various years.

Member of American Mathematical Society, American Physical Society, Society for Industrial and Applied Mathematics.

Publications

198 papers, 3 books.

Current Funding Agencies

NSF

Simons Foundation