

Amir-Kian Kashani-Poor

Curriculum Vitae

General information

Date of birth **02/08/1974**, (*Tehran, Iran*).
Nationality **German**.
Languages **English, French, German, Persian**.

Education

1997 – 2002 **PhD**, *The University of Texas at Austin*, Austin, USA (GPA: 4.0, maximal attainable), thesis title: “Topics in Gravity”.
1993 – 1997 **Master’s in physics/bachelor’s in mathematics**, *Johann Wolfgang Goethe-Universität Frankfurt*, Germany (GPA: 1.0, maximal attainable).

Degrees

2014 **Habilitation**, defense: 28/05/2014, “Computing Z_{top} ”.
2002 **PhD**, defense: 18/05/2002, “Topics in Gravity”.
1997 **Physikdiplom : master’s degree in physics**, with honors.
1995 **Physikvordiplom : bachelor’s degree in physics**.
1995 **Mathematikvordiplom : bachelor’s degree in mathematics**.

Academic positions held

since 2020 **Maître de conférences hors classe**, *Laboratoire de physique de l’ENS*, Paris.
2009 – 2020 **Maître de conférences (associate professor)**, *Laboratoire de physique de l’ENS (formerly Laboratoire de physique théorique de l’ENS)*, Paris.
2008 – 2009 **Postdoctoral fellow**, joint position: *Institut des Hautes Études Scientifiques/CEA Saclay*, Bures-sur-Yvette/Gif-sur-Yvette.
2005 – 2008 **Postdoctoral fellow**, *University of Amsterdam*, Amsterdam.
2002 – 2005 **Postdoctoral fellow**, *Stanford Linear Accelerator Center*, Menlo Park, California.
1999 – 2002 **Graduate Research Assistant**, *The University of Texas at Austin*, Austin.

Teaching experience

- Since 2009 **Associate professor at the ENS.**
- Courses at undergraduate and graduate level, including core, advanced mathematics for physicists, particle physics, quantum field theory I and II, Seiberg-Witten theory.
 - PhD supervision of Simon Douaud (2023–present), David Jaramillo Duque (2019–2023), Zhihao Duan (2016–2019), Nicolas Babinet (2012–15), co-supervision of Olivier Marchal (2009/10), Davide Cassani (2008/9).
 - Tutorials, supervision of internships and master's projects.
- 1995 – 2001 **Teaching assistant**, *JWG-Universität, Germany and UT Austin, USA*, exercise sessions at undergraduate and graduate level.

Organizational and administrative tasks

- 2018 – 2023 **Director**, *ICFP master's program, theoretical physics track.*
- 2017 – 2018 **Deputy director**, *ICFP master's program, theoretical physics track.*
- 2016 – 2017 **Jury member**, *École Doctorale Physique en Île-de-France.*
- 2014 – 2017 **Jury member**, *"Sélection internationale" at the ENS.*
- 2019 – 2024 **Elected member**, *"Conseil de laboratoire LPENS".*
- Since 2009 **Conference and workshop organization.**
- Co-organization of numerous conferences and workshops, including the annual workshop "Institut d'été" at the ENS, the thematic quarter "The Mathematics of String Theory" at the Institut Henri Poincaré, Paris, Spring 2016, the String-Math 2016 conference, Collège de France, Paris.
- Since 2009 **Seminar organization.**
- Co-organization of numerous seminars, including the bimonthly rencontres théoriciennes series, the weekly joint LPTENS/LPTHE string theory seminar series, the séminaires Darboux series by mathematicians for physicists.
- Since 2009 **Committees.**
- Member of numerous thesis committees.
 - Participation in various administrative committees, most recently (2021) regarding the upcoming reconstruction of part of the ENS physics building.

Honors and grants

- 2021 – 2025 **Deputy principal investigator**, *ANR (agence nationale de la recherche) grant "BPS black holes, topological strings and DT invariants".*
- 2013 – 2018 **Deputy principal investigator**, *ANR grant "Holographie Quantique et Symétries Nouvelles en Théorie des Cordes".*
- 2010 **Principal investigator**, *Projet Incitatif de Recherche grant at the ENS, "La théorie des cordes et ses interfaces".*
- 1997 **Award**, *Heraeus-Förderpreis für Studierende der Physik.*
- 1993 – 1997 **Scholarship**, *Studiantstiftung des Deutschen Volkes (German National Merit Foundation).*

Summary of research interests

- After my master's thesis on parton distribution functions in QCD, I turned to physics inspired by questions at higher energies. My main results are at the intersection of gauge theory, string theory, and geometry. I have also worked on various topics inspired by string theory but of independent interest, such as conformal field theory, non-commutative gauge theory, and exact WKB methods.

Recent invitations

- DESY Hamburg, Colloquium, 17/07/2025.
- Centre for Quantum Mathematics, Odense, Denmark, "ReNewQuantum Conference on Resurgence in Mathematics and Physics", 23/06/2025 – 27/06/2025.
- Woudschoten Conference Center, Zeist, "Geometry meets physics: Calabi-Yau fourfolds and beyond", 27/01/2025 – 30/01/2025.
- SwissMAP workshop, les Diablerets, "Workshop on resurgence, wall crossing and geometry", 12/01/2025 – 17/01/2025.
- University of Sheffield, "Geometry and Physics of Mirror Symmetry", 02/09/2024 – 06/09/2024.
- Mittag-Leffler workshop, Stockholm, "Enumerative Invariants, Quantum Fields and String Theory Correspondences", 22/07/24 – 26/07/24.
- Montpellier, "Cosmology and High Energy Physics VII", 27/10/23.
- KIAS, 24/04/23.
- Mittag-Leffler workshop, Stockholm, "Enumerative Invariants, Quantum Fields and String Theory Correspondences", 25/07/22 – 29/07/22.
- University of Burgundy, 10/02/21.
- University of Lille, ABKS seminar on automorphic forms, 27/02/19.
- CERN, 26/02/19.
- SISSA workshop, Trieste, "Geometric Correspondences of Gauge Theories", 11/06/18 – 15/06/18.
- Polytechnique, 07/06/18
- City University London, 26/02/18.
- Trinity College, Dublin, 06/12/17.
- KITP Santa Barbara, "Resurgence in Gauge Theory and String Theory," 30/10/17 – 03/11/17.
- Tsinghua University, Beijing, "Tsinghua Summer Workshop in Geometry and Physics," 07/08/17 – 11/08/17.
- CERN, "Geometry of string and gauge theories", 10/07/17 – 13/07/17.
- University of Milano-Bicocca, 20/04/17.
- Instituto superior Técnico, Lisbon, "Resurgence in Gauge and String Theories", 18/07/16 – 22/07/16.
- University of Tours, 11/02/16.
- University of Tianjin, "Moduli spaces in algebraic geometry and mathematical physics", 14/11/15 – 18/11/15.
- Université Paris Diderot, 06/11/15.
- CERN, 17/02/15.
- University of Lyon, 24/11/14.
- University of Bonn, "Topological string and applications", 29/09/14 – 03/10/14.
- University of Michigan, "Workshop on B-model aspects of Gromov-Witten theory", 03/03/14 – 07/03/14.
- University of Crete, 28/11/13.
- Institut Henri Poincaré, Paris, 07/10/13.

- ICTP workshop, Trieste, "Geometric Correspondences of Gauge Theories", 09/09/13 – 13/09/13.
- DESY, Hamburg, "StringPheno 2013," 15/07/13 – 19/07/13.
- MPI Potsdam, 22/04/2013.
- University of Roma Tor Vergata, 15/03/13.
- Ahrenschoop, "Ahoop conference," , 27/08/12 – 31/08/12.
- Hausdorff Center for Mathematics, Bonn, "String-Math 2012," 16/07/12 – 21/07/12.
- University of Bonn, 19/06/12.
- Hausdorff Research Institute for Mathematics, "Integrability in Topological Field Theory", 16/04/12 – 20/04/12.
- LAPTh, Annecy-le-Vieux, 19/01/12.