

DMITRY CHELKAK – CURRICULUM VITAE

• **General:**

- Name: **Dmitry Chelkak**
- Birthday/place: Jan 1979/St. Petersburg (former Leningrad), Russian Federation
- Citizenship: Russian Federation
- Family status: married, two children: Aleksandra(2006), Mikhail(2017)
- Languages: Russian (native), English (fluent), French (intermediate)
- E-mail address: **dmitry.chelkak@ens.fr**, **dchelkak@pdmi.ras.ru**
- Postal address: Département de Mathématiques et Applications  
École Normale Supérieure, 45 rue d’Ulm  
F-75230 Paris Cedex 05

• **Employment:**

- 2016/17 [–2020/21]: professor, ENS-MHI Chaire, École Normale Supérieure (Paris)
- 2015/16 : visiting professor, University of Geneva
- 2014/15 : senior fellow, Institute for Theoretical Studies, ETH Zürich
- 2009 – ... : [on leave since 2014] senior researcher, Mathematical Analysis Laboratory at St. Petersburg Department of Steklov Institute (PDMI RAS)
- 2010–2014: Chebyshev Laboratory at St. Petersburg State University (SPbSU)
- 2006/07 : senior research assistant (group of S. Smirnov), University of Geneva
- 2004–2010: docent (associate prof.), SPbSU, Department of Mathematical Analysis

• **Education:**

- Dec 2003: PhD (PDMI RAS, St. Petersburg, co-advisors: P. Kargaev & E. Korotyaev)  
Title: “*Inverse problem for harmonic oscillator perturbed by potential*”
- 2000 – 2003: Post-graduate (SPbSU & Potsdam University, Germany)
- 1995 – 2000: SPbSU (St. Petersburg State University), *diploma with honors*

• **Awards:**

- 2014: Salem Prize
- 2008: Pierre Deligne Contest Award (research scholarship for 2009–2011)
- 2004: “Young Mathematician” Prize of the St. Petersburg Math. Society
- 2000: Euler scholarship, SPbSU & Heidelberg University
- 1995: Gold Medal of IMO (36th Int. Math. Olympiad of schoolpupils)

• **Selected Talks and Mini-Courses:**

- 2018 International Congress of Mathematicians, Rio de Janeiro, August 2018:  
invited talk “*Planar Ising model at criticality: state-of-the-art and perspectives*”  
 (“Analysis and Operator Algebras” & “Probability and Statistics” sections)
- 7th European Congress of Mathematics, Berlin, July 2016:  
invited talk “*2D Ising model: correlations via boundary value problems*”  
 (“Applied Mathematics and Probability” section);
- “Conformal geometry” program at SCGP, Stony Brook, Spring 2013:  
*mini-course “Spin correlations in the planar Ising model via fermionic observables”*;
- Young European Probabilists 2012 Workshop “Two-dimensional statistical mechanics”,  
Eindhoven: *mini-course “Discrete complex analysis on the microscopic level”*;

• **Research Interests:** Analysis, Mathematical Physics, Probability (especially in 2D)

• **Research Visits (one month and more):**

- Mar/Apr 2014: ETH, Zurich
- Feb–Mar 2013: SCGP, Stony Brook (“Conformal geometry” program)
- Oct–Nov 2012: University of Geneva
- May 2011 : CRM, Barcelona (“Complex analysis and spectral problems” term)
- Sep–Oct 2010: IHES, Bures-sur-Yvette
- Jul–Aug 2008: MFO, Oberwolfach (Oberwolfach-Leibniz-Fellowship)
- Jan & Jul 2006: Humboldt University, Berlin
- Oct–Dec 2005: Mittag-Leffler Institute, Djursholm (“Wave motion” term)

• **Administrative Activity:**

- *Chebyshev Lab at SPbSU* (established in Dec 2010 under the ‘megagrant’ program of the Russian Federation Government, project leader: Prof. Stanislav Smirnov):  
*Spring 2011: vice head, Fall 2011: acting head.*

• **Other Services to the Community:**

- 2012: Summer School “*St. Petersburg School in Probability and Statistical Physics*”, member of the Organizing Committee (June 18–29, 2012, 150+ participants);
- 2009–2014: member of the St. Petersburg Mathematical Society Council;
- reviewer for a number of mathematical and physical journals.

• **Research grants:**

- Paris 2019–2022: member of the ANR project DIMERS (Paris–Lyon, PI: C. Boutillier)
- St. Petersburg 2010–2012: principal member of the ‘megagrant’ 11.G34.31.0026 of the Russian Federation Government (~1M\$ per year, project leader: S. Smirnov).
- St. Petersburg 2008–2012: several starting grants: MK-4306.2008.1, MK-7656.2010.1, Pierre Deligne Contest Award (research scholarship for 2009-2011).

• **Selected papers:**

- Dmitry Chelkak, Planar Ising model at criticality: state-of-the-art and perspectives. In *Proceedings of the International Congress of Mathematicians 2018 (ICM 2018)*, Vol. 3, pages 2789–2816. World Scientific Publishing Company Inc., 2019
- Dmitry Chelkak, Robust discrete complex analysis: a toolbox, *Ann. Probab.* 44 (2016), no. 1, 628–683.
- Dmitry Chelkak, Clément Hongler, Konstantin Izyurov, Conformal invariance of spin correlations in the planar Ising model, *Ann. Math.* 181 (2015), no. 3, 1087–1138.
- Dmitry Chelkak, Stanislav Smirnov, Universality in the 2D Ising model and conformal invariance of fermionic observables, *Invent. Math.*, 189 (2012), no. 3, 515–580.
- Weyl-Titchmarsh functions of vector-valued Sturm-Liouville operators on the unit interval. Chelkak, D.; Korotyaev, E.: *J. Funct. Anal.* 257 (2009), 1546–1588.
- Inverse problem for harmonic oscillator perturbed by potential, characterization. Chelkak, D.; Kargaev, P.; Korotyaev, E.: *Comm. Math. Phys.* 249 (2004), no. 1, 133–196.