

Second ZiF Summer School

Randomness in Physics and Mathematics

From Spin Chains to Number Theory

August 8 - 20, 2016

ZiF - Center for Interdisciplinary Research, Bielefeld University

This summer school is aimed at international PhD students and young postdoctoral researchers from Mathematics, Mathematical and Theoretical Physics. The participants will learn about modern methods from several branches of contemporary Mathematics and Mathematical Physics, together with their fruitful applications in Physics and Mathematics. This intense two-week course will include 8 interdisciplinary lecture series presented by world-class scientists, exercise sessions with solutions, and presentations by the participants themselves. The topics from Physics and Mathematics include regularity theory of stochastic field equations, topological degrees of freedom of Fermions in disordered systems, critical phenomena in quantum spin chains and lattices, time evolution of quantum systems as well as combinatorics, number theory and Gaussian analytic functions. Random Matrix Theory provides a unifying element in many of these topics - hence the title of this school - and will be complemented by advanced methods from stochastic, probability theory and analysis amongst others. A first event of this kind at ZiF in [2013](#) has been very successful.

Randomness2

Schedule

Lectures + Literature

Contributed Talks

Poster

Photos

Faculty of Mathematics

Faculty of Physics

Bielefeld University

Bielefeld Tourism

Travel information

Lecturers:

J. Brian Conrey, AIM Palo Alto, USA

Peter J. Forrester, Melbourne, AUS

Martin Hairer, Warwick, GBR

Jon Keating, Bristol, GBR

Manjunath Krishnapur, IIS Bangalore, IND

Benjamin Schlein, Zurich, CHE

Thomas Spencer, IAS Princeton, USA

Martin Zirnbauer, Cologne, DEU

Convenors:

Gernot Akemann, Bielefeld akemann@physik.uni-bielefeld.de

Friedrich Götze, Bielefeld goetze@math.uni-bielefeld.de

In addition to accommodation and subsistence for all participants we can offer 10 stipends providing travel support. We particularly welcome applications by female participants.

Applications to participate and for travel support are welcome and should be directed to the conference centre ZiF: [Opens window for sending emailMs Marina Hoffmann](#).

The deadline for requesting participation is 2nd of May 2016.

There will be a participation fee of 50 Euro

For informal enquiries including the scientific part, please, contact any of the organisers.

Conference Support Service: marina.hoffmann@uni-bielefeld.de ; phone: +49 521 106-2768

The event is supported by [ZiF - Zentrum für interdisziplinäre Forschung](#), Universität Bielefeld, Methoden 1, D-33615 Bielefeld, Germany, [CRC 701: Spectral Structures and Topological Methods in Mathematics](#) and [DAAD program "Thematische Netzwerke"](#)