

Scientific Program 2024

Workshops

Participants of the Workshops at Oberwolfach are invited personally by the Director of the Institute. Participation is subject to such an invitation. Interested researchers, in particular junior scientists, can contact the administration of the Institute. Since the number of participants is restricted, not all inquiries can be considered.

07.01. – 12.01.2024 (ID: 2402)

Fracture as an Emergent Phenomenon

Patrick Diehl, Baton Rouge
Robert Lipton, Baton Rouge
Anna Pandolfi, Milano
Thomas Wick, Hannover

14.01. – 19.01.2024 (ID: 2403)

Cluster Algebras and Its Applications

Karin Baur, Leeds
Bethany Marsh, Leeds
Ralf Schiffler, Storrs
Sibylle Schroll, Köln

21.01. – 26.01.2024 (ID: 2404)

Discrete Geometry

Karim Adiprasito, Jerusalem
Xavier Goaoc, Villers-les-Nancy
Zuzana Patáková, Praha

04.02. – 09.02.2024 (ID: 2406)

Applications of Optimal Transportation

Guillaume Carlier, Paris
Maria Colombo, Lausanne
Virginie Ehrlacher, Marne de la Vallée
Daniel Matthes, Garching

11.02. – 16.02.2024 (ID: 2407)

Interfaces, Free Boundaries and Geometric Partial Differential Equations

Charlie Elliott, Coventry
Harald Garcke, Regensburg
Barbara Niethammer, Bonn
Gieri Simonett, Nashville

18.02. – 23.02.2024 (ID: 2408)

Analysis, Geometry and Topology of Positive Scalar Curvature Metrics

Bernd Ammann, Regensburg
Bernhard Hanke, Augsburg
Anna Sakovich, Uppsala

25.02. – 01.03.2024 (ID: 2409)

Hyperbolic Balance Laws: Interplay between Scales and Randomness

Remi Abgrall, Zürich
Mauro Garavello, Milano
Mária Lukáčová-Medvidová, Mainz
Konstantina Trivisa, College Park

03.03. – 08.03.2024 (ID: 2410)

Mechanics of Materials: Multiscale Design of Advanced Materials and Structures

Samuel Forest, Evry
David McDowell, Atlanta
Stefan Müller, Bonn
Ewald Werner, München

10.03. – 15.03.2024 (ID: 2411a)

Combinatorial *-algebras

Guillermo Cortiñas, Buenos Aires
Søren Eilers, Copenhagen
Elizabeth Gillaspy, Missoula
Roozbeh Hazrat, Sydney

Miniworkshops

28.01. – 02.02.2024 (2405a/b/c), deadline for appl.: 30 June 2023
07.04. – 12.04.2024 (2415a/b/c), deadline for appl.: 30 June 2023
17.11. – 22.11.2024 (2447a/b/c), deadline for appl.: 15 March 2024
08.12. – 13.12.2024 (2450a/b/c), deadline for appl.: 15 March 2024

Tandem- or Miniworkshops

22.09. – 27.09.2024 (2439a/b) deadline for appl.: 31 July 2023

Arbeitsgemeinschaft (study group)

31.03. – 05.04.2024 (2414), to be announced in summer 2023
06.10. – 11.10.2024 (2441), to be announced in winter 2023
13.10. – 18.10.2024 (2442), to be announced in winter 2023

Oberwolfach Seminars

19.05. – 24.05.2024 (2421a/b), to be announced in winter 2023
20.10. – 25.10.2024 (2443a/b), to be announced in winter 2023
24.11. – 29.11.2024 (2448a/b), to be announced in winter 2023

10.03. – 15.03.2024 (ID: 2411b)

Nonlinear Optics: Physics, Analysis, and Numerics

Kurt Busch, Berlin
Ramy El-Ganainy, Houghton
Marlis Hochbruck, Karlsruhe

17.03. – 22.03.2024 (ID: 2412)

K-Stability, Birational Geometry and Mirror Symmetry

Thibaut Delcroix, Montpellier
Liana Heuberger, Bath
Susanna Zimmermann, Orsay

24.03. – 29.03.2024 (ID: 2413)

Proof Complexity and Beyond

Albert Atserias, Barcelona
Meena Mahajan, Chennai
Jakob Nordström, Copenhagen/Lund
Alexander Razborov, Chicago

14.04. – 19.04.2024 (ID: 2416)

Hochschild (Co)Homology and Applications

Bernhard Keller, Paris
Henning Krause, Bielefeld
Wendy Lowen, Antwerpen
Andrea Solotar, Buenos Aires

21.04. – 26.04.2024 (ID: 2417)

Applied Harmonic Analysis and Data Science

Ingrid Daubechies, Durham
Gitta Kutyniok, München
Holger Rauhut, Aachen

28.04. – 03.05.2024 (ID: 2418)

Non-commutative Function Theory and Free Probability

Kelly Bickel, Lewisburg
Michael Hartz, Saarbrücken
John E. McCarthy, Saint Louis
Roland Speicher, Saarbrücken

05.05. – 10.05.2024 (ID: 2419a)

Real and Logarithmic Enumerative Geometry

Dan Abramovich, Providence
Penka Georgieva, Paris
Helge Ruddat, Mainz

05.05. – 10.05.2024 (ID: 2419b)

Game-theoretic Statistical Inference: Optional Sampling, Universal Inference, and Multiple Testing Based on E-values

Peter Grünwald, Amsterdam/Leiden

Aaditya Ramdas, Pittsburgh

Ruodu Wang, Waterloo

Johanna Ziegel, Bern

12.05. – 17.05.2024 (ID: 2420)

Statistical Physics and Random Surfaces

Christophe Garban, Villeurbanne

Jason Miller, Cambridge UK

Scott Sheffield, Cambridge MA

26.05. – 31.05.2024 (ID: 2422)

Constrained Dynamics, Stochastic Numerical Methods and the Modeling of Complex Systems

Benedict Leimkuhler, Edinburgh

Richard Tsai, Austin

Gilles Vilmart, Geneva

Rachel Ward, Austin

02.06. – 07.06.2024 (ID: 2423)

Complexity Theory

Peter Bürgisser, Berlin

Irit Dinur, Rehovot

Salil Vadhan, Cambridge MA

09.06. – 14.06.2024 (ID: 2424)

Geometrie

Aaron Naber, Evanston

André Neves, Chicago

Eleonora Di Nezza, Palaiseau

Burkhard Wilking, Münster

16.06. – 21.06.2024 (ID: 2425)

Arrangements, Matroids and Logarithmic Vector Fields

Takuro Abe, Fukuoka

Graham Denham, London CA

Eva-Maria Feichtner, Bremen

Gerhard Röhrle, Bochum

23.06. – 28.06.2024 (ID: 2426)

Statistics and Learning Theory in the Era of Artificial Intelligence

Florentina Bunea, Ithaca

Arnak Dalalyan, Palaiseau

Robert Nowak, Madison

Sara van de Geer, Zürich

30.06. – 05.07.2024 (ID: 2427)

Model Hierarchies in Atmosphere, Ocean, and Climate Sciences

Paola Cessi, San Diego

Rupert Klein, Berlin

Samuel N. Stechmann, Madison

Björn Stevens, Hamburg

07.07. – 12.07.2024 (ID: 2428)

Algebraic Geometry: Wall Crossing and Moduli Spaces, Varieties and Derived Categories

Daniel Huybrechts, Bonn

Giulia Saccà, New York

Richard Thomas, London

Chenyang Xu, Princeton

14.07. – 19.07.2024 (ID: 2429)

Arithmetic Geometry

Bhargav Bhatt, Princeton

Ana Caraiani, London

Gerd Faltings, Bonn

Peter Scholze, Bonn

21.07. – 26.07.2024 (ID: 2430)

Topologie

Mark Behrens, Notre Dame

Ruth Charney, Waltham

Oscar Randal-Williams, Cambridge UK

András Stipsicz, Budapest

28.07. – 02.08.2024 (ID: 2431)

Polynomial Optimization for Nonlinear Dynamics: Theory, Algorithms, and Applications

Giovanni Fantuzzi, London

David Goluskin, Victoria

Jean-Bernard Lasserre, Toulouse

04.08. – 09.08.2024 (ID: 2432)

Mathematical Aspects of General Relativity

Carla Cederbaum, Tübingen

Mihalis Dafermos, Princeton

Jim Isenberg, Eugene

Hans Ringström, Stockholm

11.08. – 16.08.2024 (ID: 2433)

Calculus of Variation

Lia Bronsard, Hamilton

Maria Colombo, Lausanne

László Székelyhidi, Leipzig

Yoshihiro Tonegawa, Tokyo

18.08. – 23.08.2024 (ID: 2434)

Mathematics, Statistics, and Geometry of Extreme Events in High Dimensions

Richard Davis, New York

Rafal Kulik, Ottawa

Anne Sabourin, Palaiseau

Stilian Stoev, Ann Arbor

25.08. – 30.08.2024 (ID: 2435)

Homotopical Algebra and Higher Structures

Michael Batanin, Prague

Andrey Lazarev, Lancaster

Muriel Livernet, Paris

Martin Markl, Prague

01.09. – 06.09.2024 (ID: 2436)

Explicit Methods in Number Theory

Karim Belabas, Talence

Bjorn Poonen, Cambridge MA

Fernando Rodriguez-Villegas, Trieste

08.09. – 13.09.2024 (ID: 2437)

Riemann Surfaces: Random, Flat, and Hyperbolic Geometry

Gaëtan Borot, Berlin

Samuel Grushevsky, Stony Brook

Martin Möller, Frankfurt

15.09. – 20.09.2024 (ID: 2438)

Recent Developments in Dirichlet Form Theory and Related Fields

Zhen-Qing Chen, Seattle

Michael Röckner, Bielefeld

Masayoshi Takeda, Osaka

Anita Winter, Duisburg

29.09. – 04.10.2024 (ID: 2440)

Anabelian Geometry and Representations of Fundamental Groups

Anna Cadoret, Paris

Florian Pop, Philadelphia

Jakob Stix, Frankfurt

Adam Topaz, Edmonton

27.10. – 01.11.2024 (ID: 2444)

Deep Learning for PDE-based Inverse Problems

Simon Arridge, London

Peter Maass, Bremen

Carola-Bibiane Schönlieb, Cambridge UK

03.11. – 08.11.2024 (ID: 2445)

Directions in Rough Analysis

Thomas Cass, London

Christa Cuchiero, Vienna

Peter Friz, Berlin

10.11. – 15.11.2024 (ID: 2446)

Combinatorial Optimization

Thomas Rothvoss, Seattle

Laura Sanità, Milano

Robert Weismantel, Zürich

01.12. – 06.12.2024 (ID: 2449)

Representations of p-adic Groups

Jessica Fintzen, Bonn

David Schwein, Bonn

Maarten Solleveld, Nijmegen

15.12. – 20.12.2024 (ID: 2451)

Convex Geometry and its Applications

Shiri Artstein-Avidan, Tel Aviv

Daniel Hug, Karlsruhe

Elisabeth Werner, Cleveland