



Scientific Program 2022

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.

02.01. - 08.01.2022 (ID: 2201)

Graph Theory

Jim Geelen, Waterloo
Daniel Kral, Brno/Coventry
Alex Scott, Oxford

09.01. - 15.01.2022 (ID: 2202)

Set Theory

Ilijas Farah, Toronto
Ralf Schindler, Münster
Dima Sinapova, Chicago
W. Hugh Woodin, Cambridge MA

16.01. - 22.01.2022 (ID: 2203)

Groups and Dynamics: Topology, Measure, and Borel Structure

David Kerr, Münster
Anush Tserunyan, Montreal
Robin Tucker-Drob, College Station

23.01. - 29.01.2022 (ID: 2204)

Multiscale Coupled Models for Complex Media: From Analysis to Simulation in Geophysics and Medicine

Malgorzata Peszynska, Corvallis
Sorin Pop, Diepenbeek
Barbara Wohlmuth, Garching
Zohar Yosibash, Tel Aviv

30.01. - 05.02.2022 (ID: 2205)

Non-Archimedean Geometry and Applications

Peter Schneider, Münster
Peter Scholze, Bonn
Michael Temkin, Jerusalem
Annette Werner, Frankfurt

06.02. - 12.02.2022 (ID: 2206)

Space-Time Methods for Time-Dependent Partial Differential Equations

Ricardo Nochetto, College Park
Stig Larsson, Göteborg
Stefan Sauter, Zürich
Christian Wieners, Karlsruhe

20.02. - 26.02.2022 (ID: 2208)

Data Assimilation – Mathematical Foundation and Applications

Youssef M. Marzouk, Cambridge MA
Sebastian Reich, Potsdam
Aretha Teckentrup, Edinburgh

27.02. - 05.03.2022 (ID: 2209)

Geometric Structures in Group Theory

Martin Bridson, Oxford
Cornelia Drutu, Oxford
Linus Kramer, Münster
Bertrand Rémy, Palaiseau

06.03. - 12.03.2022 (ID: 2210)

Population Dynamics and Statistical Physics in Synergy

Frank den Hollander, Leiden
Anja Sturm, Göttingen
Anita Winter, Essen

13.03. - 19.03.2022 (ID: 2211a)

The Laguerre-Pólya Class and Combinatorics

Kathy Driver, Cape Town
Olga Holtz, Berkeley
Alan Sokal, London

13.03. - 19.03.2022 (ID: 2211b)

New Mathematical Techniques in Information Theory

Amos Lapidoth, Zürich
Prakash Narayan, College Park

27.03. - 02.04.2022 (ID: 2213)

Toric Geometry

Jürgen Hausen, Tübingen
Milena Hering, Edinburgh
Nathan Ilten, Burnaby
Diane Maclagan, Coventry

10.04. - 16.04.2022 (ID: 2215a)

Structure-Preserving Discretizations for Nonlinear Systems of Hyperbolic, Involutions-Constrained Partial Differential Equations on Manifolds

Manuel Castro, Malaga
Bruno Després, Paris
Michael Dumbser, Trento
Christian Klingenberg, Würzburg

10.04. - 16.04.2022 (ID: 2215b)

Conic Linear Optimization for Computer-Assisted Proofs

Etienne de Klerk, Tilburg
Didier Henrion, Toulouse/Prague
Frank Vallentin, Cologne
Angelika Wiegele, Klagenfurt

17.04. - 23.04.2022 (ID: 2216)

Diophantische Approximationen

Yann Bugeaud, Strasbourg
Pietro Corvaja, Udine
Laura DeMarco, Evanston
Philipp Habegger, Basel

24.04. - 30.04.2022 (ID: 2217)

Combinatorics, Probability and Computing

Michael Krivelevich, Tel Aviv
Robert Morris, Rio de Janeiro
Oliver Riordan, Oxford
Angelika Steger, Zürich

01.05. - 07.05.2022 (ID: 2218)

Interactions between Algebraic Geometry and Noncommutative Algebra

Bill Crawley-Boevey, Bielefeld
Markus Reineke, Bochum
Catharina Stroppel, Bonn
Michel Van den Bergh, Diepenbeek

08.05. - 14.05.2022 (ID: 2219)

Algebraic K-Theory

Thomas Geisser, Tokyo
Lars Hesselholt, Copenhagen
Annette Huber-Klawitter, Freiburg
Moritz Kerz, Regensburg

15.05. - 21.05.2022 (ID: 2220)

Re-thinking High-dimensional Mathematical Statistics

Florentina Bunea, Ithaca
Robert Nowak, Madison
Alexandre Tsybakov, Palaiseau

22.05. - 28.05.2022 (ID: 2221)

Deterministic Dynamics and Randomness in PDE

Andrea Nahmod, Amherst
Gigliola Staffilani, Cambridge MA
Hendrik Weber, Bath
Sijue Wu, Ann Arbor

29.05. - 04.06.2022 (ID: 2222)

Universality: Random Matrices, Random Geometry and SPDEs

Martin Hairer, London
Grégory Miermont, Lyon
Horng-Tzer Yau, Cambridge MA

12.06. - 18.06.2022 (ID: 2224)

Geometrie

Aaron Naber, Evanston
André Neves, Chicago
Burkhard Wilking, Münster

19.06. - 25.06.2022 (ID: 2225)

Hilbert Complexes: Analysis, Applications, and Discretizations

Ana M. Alonso Rodriguez, Trento
Douglas N. Arnold, Minneapolis
Dirk Pauly, Essen
Francesca Rapetti, Nice

26.06. - 02.07.2022 (ID: 2226)

Nonlinear Waves and Dispersive Equations

Herbert Koch, Bonn
Pierre Raphael, Nice
Daniel Tataru, Berkeley
Monica Visan, Los Angeles

03.07. - 09.07.2022 (ID: 2227)

Real Analysis, Harmonic Analysis and Applications

Michael Christ, Berkeley
Dettef Müller, Kiel
Christoph Thiele, Bonn
Ana Vargas, Madrid

10.07. - 16.07.2022 (ID: 2228)

Algebraic Geometry: Moduli Spaces, Birational Geometry and Derived Aspects

Christopher Hacon, Salt Lake City
Daniel Huybrechts, Bonn
Richard Thomas, London
Chenyang Xu, Princeton

17.07. - 23.07.2022 (ID: 2229)

The Renormalization Group

Roland Bauerschmidt, Cambridge UK
Margherita Disertori, Bonn
Stefan Hollands, Leipzig
Manfred Salmhofer, Heidelberg

24.07. - 30.07.2022 (ID: 2230)

Topologie

Mark Behrens, Notre Dame
Ruth Charney, Waltham
Soren Galatius, Copenhagen
Andras Stipsicz, Budapest

31.07. - 06.08.2022 (ID: 2231)

Non-Commutative Geometry and Cyclic Homology

Alain Connes, Paris
Guoliang Yu, College Station
Ryszard Nest, Copenhagen
Thomas Nikolaus, Münster

07.08. - 13.08.2022 (ID: 2232)

C*-Algebras

Dimitri Shlyakhtenko, Los Angeles
Andreas Thom, Dresden
Stefaan Vaes, Leuven
Wilhelm Winter, Münster

14.08. - 20.08.2022 (ID: 2233)

Calculus of Variations

Lia Bronsard, Hamilton
Laszlo Székelyhidi, Leipzig
Yoshihiro Tonegawa, Tokyo
Tatiana Toro, Seattle

Arbeitsgemeinschaft (study group)

03.04. - 09.04.2022 (2214), to be announced in summer 2021
09.10. - 15.10.2022 (2241), to be announced in winter 2021/22
16.10. - 22.10.2022 (2242), to be announced in winter 2021/22

Oberwolfach Seminars

05.06. - 11.06.2022 (2223a/b), to be announced in winter 2021/22
23.10. - 29.10.2022 (2243a/b), to be announced in winter 2021/22
20.11. - 26.11.2022 (2247a/b), to be announced in winter 2021/22

Miniworkshops

13.02. - 19.02.2022 (2207a/b/c), deadline for appl.: 18 July 2021
20.03. - 26.03.2022 (2212a/b/c), deadline for appl.: 18 July 2021
02.10. - 08.10.2022 (2240a/b/c), deadline for appl.: 3 April 2022
27.11. - 03.12.2022 (2248a/b/c), deadline for appl.: 3 April 2022

21.08. - 27.08.2022 (ID: 2234)

Mathematical Imaging and Surface Processing

Mirela Ben-Chen, Haifa
Antonin Chambolle, Palaiseau
Martin Rumpf, Bonn
Peter Schröder, Pasadena

28.08. - 03.09.2022 (ID: 2235)

Character Theory and Categorification

Christine Bessenrodt, Hannover
Christopher Bowman, Canterbury
Eugenio Giannelli, Florence
Alexander Kleshchev, Eugene

04.09. - 10.09.2022 (ID: 2236)

Complex Geometry and Dynamical Systems

Tien-Cuong Dinh, Singapore
George Marinescu, Köln
Valentino Tosatti, Evanston
Elizabeth Wulcan, Gothenburg

11.09. - 17.09.2022 (ID: 2237)

Large Scale Stochastic Dynamics

Pietro Caputo, Roma
Fabio Toninelli, Wien
Bálint Tóth, Bristol

18.09. - 24.09.2022 (ID: 2238)

Multiscale Wave-Turbulence Dynamics in the Atmosphere and Ocean

Ulrich Achatz, Frankfurt
Oliver Bühler, New York
Chantal Staquet, Grenoble
William Young, La Jolla

25.09. - 01.10.2022 (ID: 2239)

At the Interface between Semiclassical Analysis and Numerical Analysis of Wave Scattering Problems

Simon Chandler-Wilde, Reading
Monique Dauge, Rennes
Euan Spence, Bath
Jared Wunsch, Evanston

30.10. - 05.11.2022 (ID: 2244)

Heat Kernels, Stochastic Processes and Functional Inequalities

Masha Gordina, Storrs
Takashi Kumagai, Kyoto
Laurent Saloff-Coste, Ithaca
Karl-Theodor Sturm, Bonn

06.11. - 12.11.2022 (ID: 2245)

Analytic Number Theory

Kaisa Matomäki, Turku
Kannan Soundararajan, Stanford
Robert C. Vaughan, State College
Trevor D. Wooley, West Lafayette

13.11. - 19.11.2022 (ID: 2246)

Mathematical Advances in Geophysical Fluid Dynamics

Yoshikazu Giga, Tokyo
Matthias Hieber, Darmstadt
Peter Korn, Hamburg
Edriss S. Titi, College Station/Rehovot

04.12. - 10.12.2022 (ID: 2249a)

Algebraic Structures in Statistical Methodology

Mathias Drton, München
Thomas Kahle, Magdeburg
Seth Sullivant, Raleigh
Caroline Uhler, Zürich/Cambridge MA

04.12. - 10.12.2022 (ID: 2249b)

History of Mathematics through Collaboration: Toward a Composite Portrait of Oswald Veblen

Sloan Despeaux, Cullowhee
Della Dumbaugh, Richmond
Jemma Lorenat, Claremont

11.12. - 17.12.2022 (ID: 2250)

Enumerative Combinatorics

Mireille Bousquet-Mélou, Talence
Guillaume Chapuy, Paris
Michael Drmota, Wien
Sergi Elizalde, Hanover