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Fakultät für Mathematik

## Vorträge

Mittwoch, 22. Oktober 2014, Sky-Lounge (12 OG), Oskar-Morgenstern-Platz 1, 1090 Wien

### Mathematisches Kolloquium

Dr. Carola-Bibiane Schönlieb (University of Cambridge):

“From imperfection to information: a mathematical approach to image retrieval and analysis”

#### Abstract:

*Restoring the original image contents from distorted measurements is one of the most important tasks in image processing. It comprises the enhancement and reconstruction of images distorted by noise or blur (image denoising/deblurring), the filling-in of gaps in images (image inpainting) and the reconstruction of an image from noisy (and possible undersampled) Fourier/Radon measurements. In this presentation we will discuss techniques from inverse problems, variational calculus and partial differential equations for the solution of some of these tasks. After spending some time on introducing the concept of such methods, some of their analytical and numerical challenges, we will get to know some recent advances in the field as well as challenges and open problems. All the mathematics you will see will be furnished with images from applications for image restoration, surface interpolation and Magnetic Resonance Tomography, just to name a few.*

15:45 Uhr – 16:15 Uhr K & K (Sky Lounge)

Univ.-Prof. Dipl.-Ing. Dr. Otmar Scherzer  
Dekan Univ.-Prof. Dr. Harald Rindler

Montag, 20. Oktober 2014 ab 14:15 Uhr bis Freitag, 24. Oktober 2014, ab 14:15 Uhr,  
Erwin Schrödinger Lecture Hall, Boltzmanngasse 9, 1090 Wien

### ESI Seminar

Dr. Alessandro Valentino (MPI Bonn):

“Topological Quantum Field Theory via Higher Category Theory”

(Simons Lecture Course on Mathematical Physics)

organized by N. Carqueville

Dienstag, 21. Oktober 2014, von 15:15 bis 16:45 Uhr, TU Dissertantenraum, Freihaus,  
Turm A, 8. Stock, Wiedner Hauptstraße 8-10, 1040 Wien

### AG Diskrete Mathematik Seminar

Gwendal Collet (Ecole Polytechnique, TU Wien): “Bijections for simple maps and their applications”

Dienstag, 21. Oktober ab 15:00 Uhr, Seminarraum Biomathematik , 9. Stock  
Oskar-Morgenstern-Platz 1, 1090 Wien

### Arbeitsgemeinschaft Biomathematik

Amirreza Khodadadian (Univ.Wien): “A transport equation for confined structures applied to the OprP, Gramicidin A, and KcsA channels”



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Dienstag, 21. Oktober 2014, von 15:00 Uhr bis 17:00 Uhr, Seminarraum 8, 2. Stock  
Oskar-Morgenstern-Platz 1, 1090 Wien

**Geometry and Analysis on Groups**

Martin Finn-Sell: "Some analytic consequences of coarsely containing an expander"

Link: <http://www.mat.univie.ac.at/~gagt/Seminar.html>

Organized by G. Arzhantseva, Ch. Cashen

Mittwoch, 22. Oktober 2014, von 14:00 Uhr bis 15:00 Uhr, TU Wien, Freihaus, grüner  
Turm, 4. Stock, SEM 101 C, Wiedner Hauptstraße 8-10, 1040 Wien

**DK Seminar**

Daniel Matthes (Technische Universität München):

"Convex Lyapunov functionals for non-convex gradient flows: two examples"

Link: [http://npde.tuwien.ac.at/teaching/StatSemAbstracts\\_WS14/Matthes.pdf](http://npde.tuwien.ac.at/teaching/StatSemAbstracts_WS14/Matthes.pdf)

Donnerstag, 23. Oktober 2014, von 11:00 Uhr bis 12:00 Uhr, Seminarraum A, 2. Stock,  
Währinger Straße 17, 1090 Wien

**Geometric Analysis and Physics (GAP)**

M. Thaller (Gravitational Physics Univ. Wien): tba

Organized by M. Bauer (Uni Wien), V. Branding (TU, Wien), D. Fajman (Uni Wien),  
J. Joudioux (Uni Wien)

Donnerstag, 23. Oktober 2014, von 16:30 Uhr bis 18:00 Uhr, Seminarraum 9, 2. Stock  
Oskar-Morgenstern-Platz 1, 1090 Wien

**Vienna Seminar in Mathematical Finance and Probability**

Johanna Penteker (Johannes Kepler Univ., Linz): "p-summing multiplication operators,  
dyadic Hardy spaces and atomic decomposition"

Link: <http://www.fam.tuwien.ac.at/vs-mfp/>

Donnerstag, 23. Oktober 2014 ab 16:00 Uhr, Erwin Schrödinger Lecture Hall,  
Boltzmannngasse 9, 1090 Wien

**ESI Seminar**

Dr. Anthony Blanc (ESI, Univ. Wien): "Topological K-theory of dg-categories (part2/2)"  
organized by N. Carqueville