



## Vorträge

**Mittwoch, 28. Jänner 2015, ab 16:15 Uhr, Sky-Lounge (12 OG),  
Oskar-Morgenstern-Platz 1, 1090 Wien**

### **Mathematisches Kolloquium**

**Prof. Dr. Adrian I. Nachman (University of Toronto):**

**“Reconstruction Method for the Calderon Problem with Partial Data”**

*Abstract: The classical inverse boundary value problem of Calderon consists in determining the conductivity inside a body from the corresponding Dirichlet-to-Neumann map. Bukhgeim-Uhlmann and Kenig-Sjstrand-Uhlmann have shown that (in dimensions three and higher) uniqueness in the above problem holds even if measurements are available on possibly very small subsets of the boundary.*

*I will explain a constructive proof of these partial data results, obtained in joint work with Brian Street. Our proof involves a family of new Green's functions for the Laplacian, which may be of independent interest.*

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

**Univ.-Prof. Dipl.-Ing. Dr. Otmar Scherzer**

**Dekan Univ.-Prof. Dr. Harald Rindler**

**Donnerstag, 29. Jänner 2015, von 12:00 Uhr bis 13:00 Uhr, HS 2,EG.**

**Oskar-Morgenstern-Platz 1, 1090 Wien**

### **Habilitationsvortrag**

**Dr. Matthias Hammerl (Fakultät für Mathematik, Universität Wien):**

**„Holonomy Reductions of Parabolic Geometries and Curved Orbit Decompositions“**

*Abstract:*

*An approach via holonomy groups is often a fruitful way to understand geometric structures, and there has thus been a long established theoretical pursuit to explore the geometric implications of reduced holonomy and to understand the possible holonomy groups for a given geometric structure. While in particular the holonomy groups of affine connections and (pseudo) Riemannian metrics have been intensively studied, the appropriate notion of an holonomy reduction for general Cartan geometries has long remained elusive. For in this case, which includes the class of parabolic geometries and in particular projective and conformal structures, it is no longer geometrically evident how to interpret an holonomy group in terms of underlying geometric data. In this talk I am going to discuss a general holonomy reduction method for Cartan geometries developed in joint work with A. Cap (Univ. of Vienna) and A. R. Gover (Univ. of Auckland). The main result is the curved orbit decomposition theorem: It is shown that an holonomy reduction of a Cartan geometry gives rise to a natural decomposition of the underlying manifold into initial submanifolds, each of which carries an induced geometric structure and corresponds to a group-orbit on an homogeneous model. In particular, this provides an algebraic/geometric explanation of the singularity sets that are typically observed for parabolic holonomy reductions. The results are applied to study solutions of geometric overdetermined PDEs on parabolic geometries.*

**Univ.-Prof. Mag. Dr. Andreas Cap**

**Dekan Univ.-Prof. Dr. Harald Rindler**



Montag, 26. Jänner 2015, ab 18:00 Uhr, Fakultät für Physik, Lise-Meitner-Hörsaal, 1. Stock, Boltzmannngasse 5/Strudlhofgasse 4

**Abschiedsvorlesung** von em. o. Univ.-Prof. Dr. Jakob Yngvason:  
„Kalte Atome und Quantenwirbel“  
(Details siehe Attachment)

Dienstag, 27. Jänner 2015, von 10:15 Uhr bis 11:45 Uhr, Seminarraum 12, 2. Stock Oskar-Morgenstern-Platz 1, 1090 Wien

**Complex Analysis Seminar**

Ilya Kossovskiy: “On the analyticity of CR-maps”

<http://www.univie.ac.at/complexanalysis/Activities/Seminar2015.html>

Dienstag, 27. Jänner 2015, von 15:00 Uhr bis 17:00 Uhr, Seminarraum 8, 2. Stock Oskar-Morgenstern-Platz 1, 1090 Wien

**Geometry and Analysis on Groups**

Camille Horbez (Université Rennes 1): “The Tits alternative for the automorphism group of a free product”

<http://www.mat.univie.ac.at/~gagt/abstracts/150127.html>

Organized by G. Arzhantseva, Ch. Cashen

Dienstag, 27. Jänner 2015, von 15:15 bis 16:45 Uhr, TU Dissertantenraum, Freihaus, Turm A, 8. Stock, Wiedner Hauptstraße 8-10, 1040 Wien

**AG Diskrete Mathematik Seminar**

Christian Krattenthaler (Univ Wien): “Two applications of growth diagram bijections”

<http://dmg.tuwien.ac.at/nfn/agdm.html>

Dienstag, 27. Jänner 2015, ab 15:00 Uhr, Seminarraum Biomathematik, 9 Stock Oskar-Morgenstern-Platz 1, 1090 Wien

**Arbeitsgemeinschaft Biomathematik**

Michaela Freitag: “An introduction to the Allee effect”

Dienstag, 27 Jänner 2015 ab 9:00 Uhr bis Freitag, 30. Jänner 2015, ab 9:00 Uhr, Erwin Schrödinger Lecture Hall, Boltzmannngasse 9, 1090 Wien

**Infinite-dimensional Riemannian geometry with applications to image matching and shape analysis“ (7. Jänner – 27. Februar 2015)**

**Week 3 “Currents, surfaces and manifolds of Mappings”**

organized by

M. Bauer (Univ. Wien), M. Bruveris (Brunel), P. W. Michor (Univ. Wien)

(Details siehe Attachment)

Mittwoch, 28. Jänner 2015, von 14:00 Uhr bis 15:00 Uhr, TU Wien, Freihaus, grüner Turm, 4. Stock, SEM 101C, Wiedner Hauptstraße 8-10, 1040 Wien,

**DK Seminar**

Jan Maas (IST Austria): “Approximating rough stochastic PDEs”

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



Mittwoch, 28. Jänner 2015, ab 12:15 Uhr, Seminarraum 9, 2. Stock  
Oskar-Morgenstern-Platz 1, 1090 Wien

**NuHag Seminar**

Sarah Koppensteiner: "Lattices, Theta functions, and Fourier series"

Donnerstag, 29. Jänner 2015, von 16:00 Uhr bis 18:00 Uhr, Josephinum,  
SR (Zi. O2.101), Währingerstr. 25, 1090 Wien

**KGRC Research Seminar**

Seçil Tokgöz (Hacettepe Üniversitesi, Ankara): "Paracompactness and Remainders"

[http://www.logic.univie.ac.at/Current\\_talk.html](http://www.logic.univie.ac.at/Current_talk.html)

Donnerstag, 29. Jänner 2015, von 12:15 Uhr bis 13:15 Uhr, Seminarraum 9, 2. Stock  
Oskar-Morgenstern-Platz 1, 1090 Wien

**Vortrag im Rahmen des Seminars Optimierung**

Hermann Schichl: „An SQP-inspired method for nonsmooth nonconvex optimization problems“

Organized by R. Bot, A. Neumaier, H. Schichl

Donnerstag, 29. Jänner 2015, ab 14:00 Uhr, Seminarraum 7, 2. Stock  
Oskar-Morgenstern-Platz 1, 1090 Wien

**Mathematical Physics Seminar**

Markus Holzleitner: "Dispersive estimates for one-dimensional Schrödinger and Jacobi operators in the resonant case"

Organized by G. Teschl

<http://www.mat.univie.ac.at/~gerald/mp-sem/>