

## Vorträge

**Mittwoch, 14. November 2012, ab 16:15 Uhr, Olga Taussky-Todd Raum (C 209), UZA 4**  
**Mathematisches Kolloquium Habilvortrag**

**Dr. Johanna Michor (Fakultät für Mathematik, Universität Wien): „Algebro-geometric solutions and their perturbations“**

*Abstract:* We will study algebro-geometric solutions of hierarchies of nonlinear integrable differential-difference equations continuous in time and discrete in space. Algebro-geometric solutions are a natural extension of the class of soliton solutions and similar to these, they can be explicitly constructed using elements of algebraic geometry. The construction of such solutions in terms of specific algebro-geometric data on a compact hyperelliptic Riemann surface will be exemplified for one model, the Ablowitz-Ladik hierarchy, which is a complexified version of the discrete nonlinear Schrödinger hierarchy. We derive Riemann theta function representations for the algebro-geometric solutions and present a new algorithm to solve the inverse algebro-geometric spectral problem for general Ablowitz-Ladik Lax operators, starting from initial divisors in a dense set of full measure.

Perturbations of algebro-geometric solutions, or more precisely, scattering theory with respect to (two different) algebro-geometric background operators and its application to the inverse scattering transform will be discussed for a second discrete model, the Toda hierarchy, if time permits.

**15:45 Uhr – 16:15 Uhr K & K (Common Room)**

**Univ.-Prof. Mag. Dr. Walter Schachermayer, Dekan Univ.-Prof. Dr. Harald Rindler**

**Montag, 12. November, 12:30 Uhr, Seminarraum C 714, UZA 4,**  
**Berufungsvorträge „Numerik partieller Differentialgleichungen“**

**Prof. Dr. Angela Kunoth (Inst. für Mathematik, Universität Paderborn):**

**12:30 Uhr: Vortrag für Studierende (30 Minuten):**

**„Variationsmethoden für elliptische partielle Differentialgleichungen“**

**13:15 Uhr: Wissenschaftlicher Vortrag:**

**„Adaptive Approximations for PDE-Constrained Parabolic Control Problems“**

**(Details siehe Attachment)**

**Montag, 12. November 2012, ab 9:45 Uhr bis Freitag, 16. November 2012, ab 10:00 Uhr,**  
**Erwin Schrödinger Lecture Hall, Boltzmannngasse 9, 1090 Wien**

**ESI Modern Methods of Time-Frequency Analysis II**

**Wavelet methods in scientific computing**

**(Details siehe Attachment)**

**Workshop organized by: St. Dahlke and M. Fornasier**

**Montag, 12. November 2012, von 15:05 Uhr bis 16:50 Uhr, Seminarraum 2A310, UZA 2**  
**Arbeitsgemeinschaft Ergodentheorie**

**Franz Hofbauer (University of Vienna): “Multifractal analysis for piecewise monotone interval maps”**

**[http://mat.univie.ac.at/~zweimueller/AG\\_ETHY.html](http://mat.univie.ac.at/~zweimueller/AG_ETHY.html)**

Montag, 12. November 2012, von 17:00 Uhr bis 18:30 Uhr, Seminarraum D 101, UZA 4  
**Vortrag im Rahmen des Seminars Wahrscheinlichkeitstheorie**  
Nicolas Perkowski : “Paraproducts and controlled distributions”  
Link: [http://www.mat.univie.ac.at/~finance\\_hp/seminarWS12\\_prob.html](http://www.mat.univie.ac.at/~finance_hp/seminarWS12_prob.html)

Dienstag, 13. November 2012, von 11:15 Uhr - 12:45 Uhr, Seminarraum S1,  
Althanstraße 12, 1090 Wien  
**Complex Analysis Seminar**  
Michael Reiter: “Ji's Proof of Faran's Theorem”  
organized by: A.K. Herbig  
<http://www.univie.ac.at/complexanalysis/Activities/Seminar2012.html>

Mittwoch, 14. November 2012, von 14:20 Uhr bis 16:00 Uhr,  
Seminarraum C 207, UZA 4  
**Geometry and Analysis on Groups – Research Seminar**  
Jacek Swiatkowski (Uniwersytet Wroclawski): “Topology of the Gromov boundary of free product of hyperbolic groups.”  
<http://www.mat.univie.ac.at/~dosaj/GGTWien/Seminar.html>

Mittwoch, 14. November 2012, von 15:00 Uhr bis 15:45 Uhr,  
Seminarraum C 209, UZA 4  
**Lectures for Everybody**  
Dietrich Burde: „Diophantische Gleichungen - von Euklid bis ABC.“

Donnerstag, 15. November 2012, von 16:00 Uhr bis 18:00 Uhr, Josephinum,  
SR (Zi. O2.101), Währingerstr. 25, 1090 Wien  
KGRC Research Seminar  
Matthias Schröder: „Computable Analysis and Topology”  
[http://www.logic.univie.ac.at/Current\\_talk.html](http://www.logic.univie.ac.at/Current_talk.html)

Donnerstag, 15. November 2012, ab 15:00 Uhr , Gödel Seminarraum, Erdgeschoss  
Favoritenstraße 9-11, 1040 Wien  
WPI Talk  
Miroslaw Truszczyński, University of Kentucky: “Connecting first-order ASP and the logic FO(ID) through reducts”  
[http://www.wpi.ac.at/talks\\_view.php](http://www.wpi.ac.at/talks_view.php)

Freitag, 16. November 2012, ab 14:00 Uhr, Seminarraum D 101, UZA 4  
**Öffentliche Defensio**  
Dipl.-Ing. Sebastian Schmutzhard: „Galerkin methods for the numerical evaluation of the prolate spheroidal wave functions”