



## VORTRÄGE

**Mittwoch, 16. März 2016 von 14:00 bis 14:45 Uhr, Sky Lounge, OMP 1**

**Habilitationsvortrag** im Rahmen d. **Juniorkolloquiums: Diego Grandi (Univ. Wien): "Rate-independent plasticity based on the inelastic metric tensor"**

The modeling of finite-strain plasticity in terms of the symmetric Cauchy-Green tensor  $\mathbf{C}_p = \mathbf{P}^T \mathbf{P}$  (where  $\mathbf{P}$  is the usual plastic deformation 'gradient') and its possible advantages are discussed. In particular, we assume a rate-independent constitutive law for the plastic strain at the material point and a quasi-static elastic response for the corresponding boundary value problem. The relevancy of the modeling also for the Souza-Auricchio approach to shape memory alloys will be highlighted. We introduce the concept of energetic solution (or variational evolution) and we prove the corresponding solvability property of the model when a  $\mathbf{C}_p$ -gradient regularization term is included. The possibility of a rigorous linearization limit of the model at small-strains via evolutive- $\Gamma$ -limit arguments will also be outlined.

**14:45 Uhr – 15:15 Uhr Kaffeejause**

**Ulisse Stefanelli, Harald Rindler**

**Mittwoch, 16. März 2016 von 15:15 bis 16:00 Uhr, Sky Lounge, OMP 1**

**Mathematisches Kolloquium: Mechthild Thalhammer (Univ. Innsbruck): "Convergence analysis of high-order commutator-free Magnus integrators for non-autonomous linear evolution equations"**

In this talk, I will introduce commutator-free Magnus integrators for the time integration of non-autonomous linear evolution equations. Employing an analytical framework of sectorial operators in Banach spaces or self-adjoint operators on Hilbert spaces, respectively, evolution equations of parabolic type and Schrödinger equations with time-dependent Hamiltonian are included in the scope of applications. I will present stability and local error estimates, which imply that a high-order commutator-free Magnus integrator retains its nonstiff order of convergence for the considered classes of evolution equations, provided that suitable regularity and compatibility requirements are satisfied. Numerical examples will illustrate the theoretical considerations.

**im Anschluss vinum cum pane**

**Othmar Koch, Harald Rindler**

**Montag, 14. März 2016, von 10:15 bis 11:30 Uhr, SR 12, OMP 1,**

**Vortrag: Ziad H. Musslimani (Florida State Univ.): "Inverse scattering transform for the integrable nonlocal Schrödinger equation"**

org. by O. Scherzer

**Montag, 14. März und Mittwoch 16. März 2016 ab 14:00 bis 16:00 Uhr, ESI, Boltzmanng. 9/2, 1090 Wien**

**Mini-Course ESI: Lukasz Garncarek (Univ. Warsaw): "Property of Rapid Decay"**

org. by G. Arzhantseva, T. Schick (Details siehe Anhang)

**Achtung !!!! Montag, 14. März 2016, ab 15:00 Uhr, SR Biomathematik, 9. OG., OMP 1**

**AG Biomathematik: Kristan Schneider (HS Mittwieda): "ML-vs. Ad hoc-estimates for marker frequencies and multiplicity of infection in malaria"**

<http://homepage.univie.ac.at/Reinhard.Buerger/AGBio.html>



**Dienstag, 15. März 2016, von 13:15 bis 14:45 Uhr, SR 9, 2.OG, OMP 1**

**Complex Analysis SE: Stefan Fördös (Univ. Wien): "On a smooth reflection principle I"**

org. by B. Lamel, M. Reiter (Details siehe Anhang)

**Dienstag, 15. März 2016 ab 15:00 Uhr, ESI, Boltzmanng. 9/2, 1090 Wien**

**ESI – Seminar: Elliot Lieb (U Princeton): "A Pfaffian formula for monomer-dimer partition functions"**

org. by J. Yngvason (Details siehe Anhang)

**Dienstag, 15. März 2016, von 15:00 bis 17:00 Uhr, SR 8, 2. OG., OMP 1**

**Geometry and Analysis on Groups: Francois Dahmani (Univ. Grenoble): "A spectral theorem for random walks in Mapping Class Groups: the convergence of the stretching factors"**

org. by G. Arzhantseva, Ch. Cashen

<http://www.mat.univie.ac.at/~gagt/abstracts/160315.html>

**Mittwoch, 16. März 2016, ab 14:40, SR Biomathematik, 9. OG., OMP 1**

**Öffentliches Defensio: Florian Koglbauer (Univ. Wien): "Some Topics in Mathematical Water Wave Theory"**

**Donnerstag, 17. März 2016, 15:15 Uhr bis 17:00 Uhr, 09.142, 9 OG., OMP 1**

**AG Ergodentheorie : Klaus Schmidt (Univ. Vienna): "Permutations of  $\mathbb{Z}^d$  with restricted movement"**

org. by H. Bruin, R. Zweimüller

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

**Donnerstag, 17. März 2016, von 16.00 Uhr bis 18:00 Uhr, Josephinum, SR 8 (Zi. 02.101), Währinger Str. 25, 1090 Wien,**

**KGRC Research Seminar: Ben Miller (KGRC): "A basis theorem for the complement of the first Baire class"**

org. by Kurt Gödel Research Center

[http://www.logic.univie.ac.at/2016/Talk\\_03-17\\_a.html](http://www.logic.univie.ac.at/2016/Talk_03-17_a.html)

**Donnerstag, 17. März 2016, von 16:30 Uhr bis 18:00 Uhr, TU Wien, Wiedner Hauptstr. 8, FH grün, SR 4, 4. OG.**

**Vienna SE Mathematical Finance and Probability: Miklos Rasonyi (Renyi Inst. Hung. Acad. of Science): "Optimal investment in the APM of Ross"**

org. by W. Schachermayer

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

**Donnerstag, 17. März 2016, ab 15:30 Uhr, SR 9, OMP 1**

**SE Differentielle Analysis: Adam Parusinski: "Local topological algebraicity of analytic function germs"**

org. by A. Rainer