

# VORTRÄGE

**15.45 Uhr: Kaffeejause**

**16.15 Uhr: Vortrag**

Mittwoch, 25. Mai 2022 16:15 bis 18:00

SKY LOUNGE, 12. OG, OMP 1 UND ZOOM

**Whitney manifold germs as source for manifolds of mappings**

**Peter Michor (Universität Wien)**

**Mathematisches Kolloquium**

Org.: R. I. Boţ

[https://mathematik.univie.ac.at/fileadmin/user\\_upload/f\\_mathematik/Events\\_News/Vortraege\\_Events/2021\\_22/Einladung\\_MathKoll\\_Michor.pdf](https://mathematik.univie.ac.at/fileadmin/user_upload/f_mathematik/Events_News/Vortraege_Events/2021_22/Einladung_MathKoll_Michor.pdf)

<https://mathematik.univie.ac.at/eventsnews/mathematisches-kolloquium/>

## **Abstract:**

*During the preparation of a foundational chapter on manifolds of mappings for a book on geometric continuum mechanics I found out that the following object behaves surprisingly well as source of a manifold of mappings:*

– A Whitney manifold germ  $\tilde{M} \supset M$  consists of an open manifold  $\tilde{M}$  together with a closed subset  $M \subset \tilde{M}$  which is the closure of its open interior, such that there exists a continuous linear extension operator from the space of Whitney jets on  $M$  to the space of smooth functions  $C^\infty(\tilde{M})$ , with their natural locally convex topologies. This concept is local in  $\tilde{M}$ , due to recent advances for the existence of continuous Whitney extension operators by D. Vogt, M. Tidten, L. Frerick, and J. Wengenroth. This notion is more general than all existing notions: domains with Lipschitz boundary or Hölder boundary, the manifolds with rough boundary of Roberts and Schmeding.

– The following concepts are very well behaved: Smooth mappings into manifolds. Vector bundles. Fiber bundles. The space of vector fields on  $M$  tangent to the boundary is a convenient Lie algebra, with “Lie group” (in a weakened sense) the group of diffeomorphisms of  $M$ .

– Based on: Peter W. Michor: *Manifolds of mappings for continuum mechanics*. In the book: *Geometric Continuum Mechanics*. Editors: Reuven Segev, Marcelo Epstein. Series: *Advances in Continuum Mechanics*, Vol. 42. pp. 3-75. Birkhäuser Basel 2020.

## **vinum cum pane im Anschluss**

Montag, 23. Mai 2022 13:30 bis 13:50

HS 8, 1. OG, OMP 1

**Nonlinear programming and duality**

**Yura Malitsky (Linköping University)**

**Vortrag**

Org.: R. I. Boţ

Montag, 23. Mai 2022 14:20 bis 15:05

HS 8, 1. OG, OMP 1

**Adaptive algorithms**

**Yura Malitsky (Linköping University)**

**Vortrag**

Org.: R. I. Boţ

Montag, 23. Mai 2022 15:00 bis 16:30

SR10 (2ND FLOOR)

**Sampled STFT phase retrieval: foundational discretization barriers and relations to the completeness problem of discrete translates**

**Lukas Liehr (University of Vienna)**

**Vortrag**

Org.: M. Faulhuber and K. Gröchenig

<https://univie.zoom.us/j/69300051545?pwd=WENsSnpuSllRMTdpWlFyRnUrUHp1dz09>

[https://mathematik.univie.ac.at/eventsnews/nachrichtenvolldarstellung/news/sampled-stft-phase-retrieval-foundational-discretization-barriers-and-relations-to-the-completeness/?no\\_cache=1&tx\\_news\\_pi1%5Bcontroller%5D=News&tx\\_news\\_pi1%5Baction%5D=detail&cHash](https://mathematik.univie.ac.at/eventsnews/nachrichtenvolldarstellung/news/sampled-stft-phase-retrieval-foundational-discretization-barriers-and-relations-to-the-completeness/?no_cache=1&tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash)

Dienstag, 24. Mai 2022 12:30 bis 12:50

SR 01, EG, OMP 1

**Introduction to constrained optimization**

**Markus Sinnl (Johannes Kepler Universität Linz)**

**Vortrag**

Org.: R. I. Boţ

Dienstag, 24. Mai 2022 13:15 bis 14:45

SR 10, 2. OG., OMP 1

**TBA**

**Denis Benois (U Bordeaux)**

**Seminar "Representation Theory and Automorphic Forms"**

Org.: H. Grobner, A. Minguez-Espallargas, A. Mellit

Dienstag, 24. Mai 2022 13:20 bis 14:05

SR 01, EG, OMP 1

**An outer approximation algorithm for certain classes of multi-objective mixed-integer programming problems**

**Markus Sinnl (Johannes Kepler Universität Linz)**

**Vortrag**

Org.: R. I. Boţ

Dienstag, 24. Mai 2022 14:00 bis 15:00

ZOOM MEETING

**On Galilean Conformal Field Theory**

**Bin Chen (Peking University)**

**Joint Theory Seminar**

Org.: TU Wien und Mathematische Physik

Dienstag, 24. Mai 2022 15:00 bis 17:00

SR 10, 2. OG., OMP 1

**Equations, rational sets and formal languages**

**Alex Evetts (Manchester)**

**Geometry and Analysis on Groups Seminar**

Org.: G. Arzhantseva, Ch. Cashen, Y. Lodha

[https://mathematik.univie.ac.at/forschung/seminare/geometry-and-analysis-on-groups-research-seminar/?no\\_cache=1](https://mathematik.univie.ac.at/forschung/seminare/geometry-and-analysis-on-groups-research-seminar/?no_cache=1)

<https://univiennea.zoom.us/j/61386912732>

Dienstag, 24. Mai 2022 15:00 bis 16:30

SR 10, 1. STOCK, KOLING. 14-16, 1090 WIEN SR 10, 1. STOCK, KOLING. 14-16, 1090 WIEN

**Inner Models, Determinacy, and Sealing**

**S. Müller (TU Wien)**

**KGRC SE**

Org.: KGRC

Dienstag, 24. Mai 2022 15:15 bis 16:15

TU WIEN, DISSERTANTENRAUM, FREIHAUS, TURM A, 8. OG., WIEDNER HAUPTSTR. 8-10, 1040 WIEN

**Rook Theory and generalisations. An overview of different weight-dependent models**

**Moritz Gangl (Universität Wien)**

**AG Diskrete Mathematik**

Org.: M. Drmota

Dienstag, 24. Mai 2022 15:30 bis 15:50

SR 01, EG, OMP 1

**Das Gradientenverfahren für unrestringierte Optimierungsprobleme**

**André Uschmajew (Max-Planck-Institut)**

**Vortrag**

Org.: R. I. Boţ

Dienstag, 24. Mai 2022 16:15 bis 17:15

FAKULTÄT FÜR PHYSIK, ERWIN SCHRÖDINGER-HÖRSAAL, BOLTZMANNG. 5, 5. ST., 1090 WIEN UND ZOOM

**Strongly and weakly interacting massive particles**

**Marco Nikolic (HEPHY)**

**Vortrag**

Org.: Teilchenphysik

Dienstag, 24. Mai 2022 16:20 bis 17:05

SR 01, EG, OMP 1

**Gradient methods for row-sparse and low-rank matrix recovery**

**André Uschmajew (Max-Planck-Institut)**

**Vortrag**

Org.: R. I. Boţ

Mittwoch, 25. Mai 2022 11:30 bis 13:00

SR 10, 1. STOCK, KOLING. 14-16, 1090 WIEN SR 10, 1. STOCK, KOLING. 14-16, 1090 WIEN

**Unindexed subshifts of finite type and a connecton to Thompsons groups**

**J. Mitchell (U of St Andrews, UK)**

**KGRC SE**

Org.: KGRC

Mittwoch, 25. Mai 2022 15:15 bis 15:45

TU WIEN (ROOM: EI4 REITHOFFER HS, 2ND FLOOR, GUSSHAUSSTRASSE 25, 1040 VIENNA) AND ZO

**Exponential convergence to equilibrium for the kinetic Fokker-Planck equation**

**Gayrat Toshpulatov (TU Wien)**

**PDE Afternoon**

Org.: SFB 65, DK

[https://mathematik.univie.ac.at/fileadmin/user\\_upload/f\\_mathematik/Events\\_News/Vortraege\\_Events/2021\\_22/pde\\_afternoon\\_2022-05-25.pdf](https://mathematik.univie.ac.at/fileadmin/user_upload/f_mathematik/Events_News/Vortraege_Events/2021_22/pde_afternoon_2022-05-25.pdf)

<https://sfb65.univie.ac.at/#!/public/events/details/?type=1&id=666>