

**Week 3 of the Thematic Programme on
“Infinite-dimensional Geometry: Theory and Applications”****January 27 - 31, 2025****organized by****Tomasz Goliński (U of Białystok), Gabriel Larotonda (U of Buenos Aires), Alice Barbara
Tumpach (WPI, Vienna), Cornelia Vizman (WU of Timisoara)****• Monday, January 27th, 2025**09:00 – 09:30 **Registration**09:30 – 09:40 **Opening**09:40 – 10:40 **Mini-Course 1 Lecture 1 (1 h including questions)** Anastasia Molchanova (TU Vienna)
*Sobolev homeomorphisms and their weak limits*10:40 – 11:10 **Coffee break**11:10 – 12:00 **Invited talk (40 min + 10 min questions)** Zofia Grochulska (Jyväskylä U)
*Approximately differentiable homeomorphisms: derivatives and Jacobians*12:00 – 14:00 **Lunch break**14:00 – 15:00 **Mini-Course 2 Lecture 1 (1 hour including questions)** Laszlo Feher (U of Szeged)
*Integrable Hamiltonian systems from Poisson reductions of doubles of compact Lie groups*15:00 – 15:30 **Coffee or Tea break**15:30 – 16:30 **Mini-Course 3 Lecture 1 (1 h including questions)** Tobias Diez (Shanghai Jiao Tong U)
*Infinite-dimensional Symplectic Geometry***• Tuesday, January 28th, 2025**09:00 – 10:00 **Mini-Course 1 lecture 2 (1 h including questions)** Anastasia Molchanova (TU Vienna)
*Sobolev homeomorphisms and their weak limits*10:05 – 10:30 **Short talk (20 min + 5 min questions)** Aseel AlNajjar (KAUST, Thuwal)
*Asymptotic limits for strain-gradient viscoelasticity with nonconvex energies*10:30 – 11:00 **Coffee or Tea break**11:00 – 12:00 **Mini-Course 2 Lecture 2 (1 hour including questions)** Laszlo Feher (U of Szeged)
*Integrable Hamiltonian systems from Poisson reductions of doubles of compact Lie groups*12:00 – 14:00 **Lunch break**14:00 – 15:00 **Mini-Course 3 lecture 2 (1 h including questions)** Tobias Diez (Shanghai Jiao Tong U)
*Infinite-dimensional Symplectic Geometry*15:00 – 15:30 **Coffee or Tea break**15:30 – 16:30 **Keynote Speaker (1 hours including questions)** Yurii Neretin (U of Graz & HSM MIPT)
Unitary representations of the group of diffeomorphisms of the circle

- **Wednesday, January 29th, 2025**

09:00 – 09:30 **Tutorial (30 min)** Alice Barbara Tumpach (WPI, Vienna)

The Universal Teichmüller space

09:30 – 10:30 **Mini-Course 1 lecture 3 (1 h including questions)** Anastasia Molchanova (TU Vienna)

Sobolev homeomorphisms and their weak limits

10:30 – 11:00 **Coffee or Tea break**

11:00 – 12:00 **Mini-Course 2 lecture 3 (1 hour including questions)** Laszlo Feher (U of Szeged)

Integrable Hamiltonian systems from Poisson reductions of doubles of compact Lie groups

12:00 – 14:00 **Lunch break**

14:00 – 15:00 **Mini-Course 3 lecture 3 (1 h including questions)** Tobias Diez (Shanghai Jiao Tong U)

Infinite-dimensional Symplectic Geometry

15:00 – 15:30 **Coffee or Tea break**

15:30 – 16:30 **Keynote talk (1 hour including questions)** Peter Michor (U of Vienna)

Remarks on Infinite dimensional symplectic and Poisson geometry

17:00 **Cocktail reception**

- **Thursday, January 30th, 2025**

09:00 – 09:30 **Tutorial (30 min)** Alice Barbara Tumpach (WPI, Vienna)

Infinite-dimensional hyperkaehler quotients, Nahm's equations and coadjoint orbits

09:40 – 10:30 **Invited talk (40 min + 10 min questions)** Johanna Bimmermann (Ruhr U, Bochum)

From Magnetically Twisted to Hyperkähler

10:30 – 11:00 **Coffee or Tea break**

11:00 – 11:25 **Short talk (20 min + 5 min questions)** Lina Deschamps (U Heidelberg)

On a hyperkähler view of the magnetic geodesic flow on CP^n .

11:35 – 12:00 **Short talk (20 min + 5 min questions)** Sadashige Ishida (ISTA)

More symplectic structures on the space of space curves

12:00 – 14:00 **Lunch break**

14:00 – 14:25 **Short talk (20 min + 5 min questions)** Najma Mosadegh (Azarbaijan Shahid Madani University)

Investigation on Minimal Surfaces, Biharmonic Submanifolds, and Their Applications in Discrete Geometry

14:30 – 14:55 **Short talk (20 min + 5 min questions)** Anna Doležalová (Czech Academy of Sciences, Prague)

Sobolev homeomorphisms in models of Nonlinear Elasticity

14:55 – 15:30 **Coffee or Tea break**

15:30 – 16:30 **Keynote talk (1 hour including questions)** Tudor Stefan RATIU (Shanghai Jiao Tong University)

Two reductions for the Teichmüller space

20:30 – 05:00 **TU Ball (for those who want to attend)**

Some of us are planning to attend the TU Ball: <https://tuball.htu.at/page/gallery?lang=en> If you want to join, there should be still some Tickets available (at your own costs) and we can arrange to pick them up. In this case, take a look at the dress code <https://tuball.htu.at/page/home?lang=en> and take what is necessary with you for your trip!

- **Friday, January 31st, 2025**

09:00 – 09:30 **Tutorial (30 min)** **Gabriel Larotonda (U of Buenos Aires)**

Symmetric spaces: from the Lie group approach to the linear connection approach

09:40 – 10:30 **Invited Talk (40 min + 10 min questions)** **Farid Diaf (U Grenoble Alpes)**

Vector fields on the hyperbolic plane and surfaces in half-pipe space

10:30 – 11:00 **Coffee or Tea break**

11:00 – 12:00 **Keynote talk (1 hour including questions)** **Olga Bernardi (U Padova)**

Studying symplectic billiards: an overview and recent rigidity results

– *online*

12:00 – 14:00 **Lunch break**

14:00 – 14:50 **Invited talk (40 min + 10 min questions)** **Ana Chavez Caliz (U Heidelberg)**

Outer Symplectic Billiards

14:50 – 15:30 **Coffee or Tea break**

15:30 – 16:30 **Keynote talk (1 hour including questions)** **Anna Florio (Dauphine U, Paris)**

Genericity of transverse homoclinic points for analytic convex billiards

– *online*

All talks take place at ESI Boltzmann Lecture Hall!