

Workshop on
“Rigidity and Flexibility of Geometric Structures”

September 24 – 28, 2018

organized by

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Brigitte Servatius (Worcester Polytechnic Inst.)

• **Monday, September 24, 2018**

09:00 – 09:30 **Registration**

09:20 – 09:30 **Opening**

09:30 – 10:30 **Hellmuth Stachel**
Between rigidity and flexibility

10:30 – 11:00 *Coffee / Tea break*

11:00 – 12:00 **Bill Jackson**
Rigidity of graphs and frameworks

12:00 – 14:00 *Lunch break*

14:00 – 15:00 **Open Session (part 1)**
Short talks

15:00 – 15:30 *Coffee / Tea break*

15:30 – 16:30 **Open Session (part 2)**
Short talks

• **Tuesday, September 25, 2017**

09:30 – 10:30 **Oleg Karpenkov**
Configuration spaces of tensegrities on graphs and CW-complexes

10:30 – 11:00 *Coffee / Tea break*

11:00 – 11:25 **Andrea Micheletti**
Some questions on molecular structures and rigid-panel structures

11:25 – 11:50 **Brigitte Servatius**
Delta matroids and rigidity matroids for graphs and maps on surfaces

11:50 – 13:50 *Lunch break*

13:50 – 14:50 **Ivan Izmestiev**
Flexible Kokotsakis polyhedra and elliptic functions

14:50 – 15:20 *Coffee / Tea break*

15:20 – 15:45 **Grigory Ivanov**

Orthodiagonal Kokotsakis polyhedra

15:45 – 16:10 **Zeyuan He**

Rigid-foldable quadrilateral creased papers

16:10 – 16:35 **Klara Mundilova**

“Rigid” curved crease origami

• **Wednesday, September 26, 2017**

09:30 – 10:30 **Meera Sitharam**

Realization Certificates for Solving Geometric Constraint Systems (and a polynomial time algorithm for planar, minimally rigid, bar-joint systems)

10:30 – 11:00 *Coffee / Tea break*

11:00 – 11:25 **Jean-Marc Schlenker**

Polyhedra inscribed in quadrics

11:25 – 11:50 **Andreas Mueller**

Higher-order rigidity revisited from screw theory

11:50 – 13:50 *Lunch break*

13:50 – 14:50 **Louis Theran**

Unlabeled generalisations of global rigidity

14:50 – 15:20 *Coffee / Tea break*

15:20 – 15:45 **Ciprian Borcea**

Ellipsoids and auxetics

15:45 – 16:10 **James Cruickshank**

Periodic packings of curves

16:10 – 16:35 **Stephen Power**

Counting 3-periodic nets and their isotopy classes

16:35 – 16:45 **Workshop photo**

17:00 – **Workshop dinner**

• **Thursday, September 27, 2017**

09:30 – 10:30 **Matteo Gallet**

Tropical geometry for minimally rigid graphs

10:30 – 11:00 *Coffee / Tea break*

11:00 – 11:25 **Jan Legersky**

Graphs with flexible labelings allowing injective realizations

11:25 – 11:50 **Hans-Christian van Bothmer**

Hexapods with a small linear span

11:50 – 13:50 *Lunch break*

13:50 – 14:50 **Leo Liberti**

Distance geometry in data science

14:50 – 15:20 *Coffee / Tea break*

15:20 – 15:45 **John Owen**

Symmetry, redundancy and quadratic solvability in point-line-plane frameworks

15:45 – 16:10 **Sean Dewar**

Rigidity in the normed plane

16:10 – 16:35 **Bernd Schulze**

Frameworks with coordinated edge motions

• **Friday, September 28, 2017**

09:30 – 10:30 **Gaiane Panina**

Oriented area as a Morse function

10:30 – 11:00 *Coffee / Tea break*

11:00 – 11:25 **Daniel Scharler**

Rational motions with trajectories of low degree

11:25 – 11:50 **Niels Lubbes**

On an invariant for linkages

11:50 – 13:50 *Lunch break*

13:50 – 16:35 **Discussions**

All talks take place at ESI, Boltzmann Lecture Hall!