## Schedule Workshop 2 "Code of Rigidity"

March 11 - 15, 2024

Organizer: Jan Legerský

|               | Monday<br>March 11   | Tuesday<br>March 12   | Wednesday<br>March 13  | Thursday<br>March 14                                      | Friday<br>March 15   |
|---------------|--|---|--|---|--|
| 9:30 - 10:30  |  | <b>Martin Larsson</b><br>Generating Graphs and<br>Solving Polynomial Equation<br>Systems Quickly    | Hakan Guler *<br>A GUI App For Rigidity  | How should a rigidity<br>software package look like?<br>* | Discussions on the<br>package:<br>content and technical<br>aspects in parallel * |
| 10:30 - 11:00 | Registration & Introduction  | Coffee Break  | Coffee Break   | Coffee Break  | Coffee Break   |
| 11:00 - 12:00 | Meera Sitharam<br>A Tour of Algorithms, Complexity,<br>and Code for Geometric<br>Constraint Problems and<br>Applications | <b>Jose Capco</b><br>Efficient Program for Counting<br>Realizations of Laman Graphs                 | Matthias Himmelmann<br>Homotopy Continuation<br>Methods for Equilibration and<br>the Computation of<br>Deformation Paths | What should the package contain? *                        | Discussions on the<br>package:<br>content meets the technical<br>aspects *       |
| 12:00 - 13:30 | Lunch Break  | Lunch Break   | Lunch Break  | Lunch Break   | Wrap up session<br>& Good-bye  |
| 13:30 - 14:30 | <b>András Mihálykó</b><br>Global rigidity requires<br>hypergraphs  | Ileana Streinu<br>Geometry and Matter:<br>developing and applying<br>rigidity code                  |  | Louis Theran *<br>Leaning into rigidity                   |  |
| 14:30 - 15:00 | Péter Madarasi<br>Efficient implementations of<br>algorithms for finding largest<br>(k,l)-sparse subgraphs               | Joannes Vermant<br>Counting for rigidity in graphs<br>of groups                                     |  | Discussions on Lean *                                     |  |
| 15:00 - 15:30 | Coffee Break   | Coffee Break  |  | Coffee Break  |  |
| 15:30 - 16:30 | Louis Theran<br>Good conjectures and proofs<br>from bad rigidity software  | Oliver Clarke<br>Using toric degenerations to<br>study the algebraic matroid of<br>the Grassmannian | 15:30 Show Bakery<br>"Jindrak"   | Discussions on the  |  |
| 16:30 - 17:00 | Georg Grasegger<br>RigiComp - A mathematica<br>package for rigidity<br>computations                                      | Jan Legerský *<br>FlexRiLoG - constructing<br>flexible realizations via edge<br>colorings           |  | package/Lean *  |  |
|               | 17:00<br>Reception   |   | 18:30<br>Dinner at Restaurant<br>Keintzel  |   |  |