



Klara Mundilova

Developability and Deployability:

Theory, Design, and Applications of (Semi-)Discrete Conjugate Nets

Geometry plays a central role in the design of fabrication-aware and functional structures. This talk explores how semi-discrete conjugate nets can be used to model and create structures with practical geometric properties, particularly developability and deployability. The first part presents methods for the construction and optimization of cone nets for interactive design. The second part examines the flexibility of piecewise developable geometries, namely their ability to undergo conjugacy-preserving isometric deformations. We review recent advances concerning the relationship between flexible discrete and semi-discrete conjugate nets and introduce new results on the flexibility of globally developable semi-discrete conjugate nets. The talk concludes with an outlook on future research direction and potential applications.