**Technion-Israel Institute of Technology**

**Computer Science Department**

**Center for Graphics and Geometric Computing**

# CGGC Seminar

**Florine Hartwig**

Mathematics Center, the University of Bonn

## Shape Matching of Discrete Shells

- Joint work with O. Azencot, M. Ben-Chen, M. Rumpf, and J. Sassen

Finding correspondences between shapes is a central task in geometry processing with many applications such as texture or deformation transfer and shape interpolation. We focus on developing a method to find correspondences between non-isometric geometric shapes. Our method follows the functional map approach. However, unlike existing classical functional map approaches our method is able to match extrinsic surface features by design. To achieve this we consider eigenfunctions of the Hessian of an elastic thin shell energy to construct a new reduced basis for the function spaces occurring in this context.

Florine Hartwig recently obtained her Master's degree in Mathematics from the University of Bonn focusing on Numerical Analysis. She is starting her Ph.D. in the working group of Prof. Dr. Martin Rumpf at the University of Bonn working on extending the theory of Riemannian Shape Spaces and problems in geometry processing.

**The lecture will be held on Sunday, 13.11.2022, at 13:30, Taub 301**

**הזמנה זו מהווה אישור כניסה עם רכב לטכניון**