



# Limits of Sobolev homeomorphisms: Challenges and Opportunities

A talk by Dr. Anastasia Molchanova  
from University of Vienna  
in „Konstanz Women in Mathematics“ lecture series.

Wednesday, 30<sup>th</sup> of November 2022, 2PM in D301

**Abstract:** The class of Sobolev homeomorphisms is naturally appearing in geometric function theory, calculus of variations, and continuum mechanics. In this talk, we discuss properties of mappings desirable from both modelling and analytical view-points, such as continuity, injectivity, Lusin’s  $(N)$ – and  $(N - 1)$ – conditions, and  $(INV)$ – condition. We will consider challenges for limits of homeomorphisms to satisfy the mentioned properties and how to breach these obstacles.

**Note:** After the talk there will be a KWIM coffee round with extra time for (career) questions and informal discussions.

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