

# DIFFEOMORPHIC APPROXIMATION OF SOBOLEV HOMEOMORPHISMS

*(Joint work by Tadeusz Iwaniec, Leonid Kovalev and Jani Onninen)*

**Abstract.**

Every homeomorphism  $h: X \rightarrow Y$  between planar open sets that belongs to the Sobolev class  $W^{1,p}(X,Y)$ ,  $p > 1$ , can be approximated in the Sobolev norm by  $C^1$ -smooth diffeomorphisms.