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*Non-linear Beltrami equations*

Singular integrals and the Beurling transform in particular are known to be well related to different properties of solutions to linear Beltrami equations, i.e. 2-D quasiconformal and quasiregular mappings. The connections range from existence and regularity of solutions to a variety of other topics. Among most recent relations are for instance the linear  $A_2$  bounds for the Beurling transform due to Petermichl and Volberg, generalised by many others, or e.g. topics related to the Iwaniec conjecture on the  $L^p$ -norm of the Beurling transform.

In this talk we wish to discuss what happens in the non-linear setting, and in particular develop regularity and other properties of solutions to the non-linear 2-D Beltrami equations. The talk is based on joint works with A. Clop, D. Faraco, J. Jääskeläinen and A. Koski.