

Quantitative unique continuation properties of (nonlocal) discrete elliptic equations

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Abstract: While (quantitative) unique continuation properties hold for large classes of local and nonlocal equations and have been intensively studied, for their discrete counterparts only weaker versions of these persist in general. In this talk I discuss quantitative versions of these, both for local and nonlocal equations with optimal correction terms in the discretization error and describe consequences for associated inverse problems. This is based on joint work with Aingeru Fernández Bertolin, Luz Roncal and Diana Stan.