

TEMPLE UNIVERSITY

Department of Mathematics

Analysis Seminar

Room 617 Wachman Hall

Monday, April 1st, 2024, 2:30 p.m.

The Moser method for infinitely degenerate equations with non-vanishing right hand side

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Abstract: We will present an implementation of the Moser iteration method in a non-doubling geometry with applications to boundedness and continuity of solutions to elliptic equations in which the ellipticity degenerates to infinite order. This is the first implementation of the Moser iteration in such a degenerate setting, allowing us to obtain continuity of solutions when the right hand side is non-vanishing and admissible. This work is continuation of a project in which continuity was previously established via a De Giorgi iteration but only for vanishing right hand sides. The work is done in collaboration with Luda Korobenko, Eric Sawyer, and Ruipeng Shen.