

Nonstandard Winter Day 2023

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Title: **Fractional differentiability results for elliptic partial differential equations with coefficients**

Abstract: In this talk, we will study recent fractional differentiability results for elliptic PDEs with coefficients belonging to C_γ^α space. The optimality of the recent fractional differentiability results will be discussed from the perspective of the scaling argument. Furthermore, we will see some advantages of applying perturbation arguments to derive fractional differentiability results compared to direct methods testing the finite difference of the solution.