Monday's Nonstandard Seminar 10

14:00

Author: Angela Alberico (Institute for Applied Mathematics - CNR - Naples)

Title: **Fractional Orlicz-Sobolev spaces**

Abstract: The optimal Orlicz target space and the optimal rearrangement-invariant target space are exhibited for embeddings of fractional-order Orlicz–Sobolev spaces $W^{s,A}(\mathbb{R}^n)$. Related Hardy type inequalities are proposed as well. Versions for fractional Orlicz-Sobolev seminorms of the Bourgain-Brezis-Mironescu theorem on the limit as $s \to 1^-$ and of the Maz'ya-Shaposhnikova theorem on the limit as $s \to 0^+$ are established. This is a joint work with Andrea Cianchi, Luboš Pick and Lenka Slavíková.