Fractional order Orlicz-Sobolev spaces and applications

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Abstract

In this talk I will give what we believe is the *natural* definition of fractional order Orlicz-Sobolev spaces. After showing that this spaces are well-behaved from a functional analysis point of view, we investigate the limit as the fractional parameter $s \uparrow 1$. Then we apply these results to the study of some fractional non-standard growth elliptic-type problems.

This work is in collaboration with Ariel Salort from Universidad de Buenos Aires.