

15.03.2021

**Monday's Nonstandard Seminar 24**

**14:00**

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Title: **Two recent results on the double phase equations**

Abstract: In this talk, we first review some regularity results for the double phase problems. Then we present a result on the equivalence between weak solutions and viscosity solutions for double-phase equations. Moreover, we report a new Campanato type estimate for the weak solutions of multi-phase equations. The result obtained here is different from the BMO type estimates for the usual  $p$ -Laplacian equation due to DiBenedetto and Manfredi. The content of this talk is in close relationship with the recent pioneering contributions of Marcellini and Mingione in the qualitative analysis of double phase problems.