

7.06.2021

Monday's Nonstandard Seminar 36

14:00

Author: Fernando Farroni (Università degli Studi di Napoli Federico II)

Title: **Existence and regularity results for some noncoercive operators**

Abstract: We consider a family of quasilinear second order elliptic operators which are noncoercive due to the presence of singular coefficients in the lower order terms. We prove the existence of a solution to the corresponding Dirichlet problem and prove higher integrability of the solution. We show that our results are optimal and we also address the obstacle problem for the same kind of operators. This talk is based upon a joint project with Luigi Greco, Gioconda Moscariello and Gabriella Zecca.

Reference: F. Farroni, L. Greco, G. Moscariello, G. Zecca, *Noncoercive quasilinear elliptic operators with singular lower order terms*. *Calc. Var.* 60, 83 (2021). <https://doi.org/10.1007/s00526-021-01965-z>