Dirichlet problem for noncoercive nonlinear elliptic equations in unbounded domains

Emilia Anna ALFANO

University of Salerno, Italy

In this talk we analyse noncoercive nonlinear Dirichlet problems in unbounded domains. Some complications arise as a consequence of the unboundedness of the domain and of the noncoercivity of the operator of our problem. To overcome these difficulties, we follow a nonlinear approach. Namely, in order to obtain an existence result, we approximate the solution of the problem by the solutions of suitable coercive nonlinear Dirichlet problems.

References

[1] E. A. Alfano and S. Monsurrò, Noncoercive nonlinear Dirichlet problems in unbounded domains, Nonlinear Anal., 192 (2020).

[2] S. Monsurrò and M. Transirico, Noncoercive elliptic equations with discontinuous coefficients in unbounded domains, Nonlinear Anal., 163 (2017), 86-103.