



UNIVERSITÀ DI PARMA

DIPARTIMENTO DI SCIENZE MATEMATICHE, FISICHE E INFORMATICHE

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Notizie

SEMINARIO di Analisi Matematica



Data: **venerdì 6 luglio**, ore **14:30**

Luogo: **Aula A**

Relatore: **Prof. Nicolas Saintier**

Dept. de Matemática,
Universidad de Buenos Aires

Titolo: **Existence results for nonlinear elliptic equations with measure valued absorption potential**

Tutti gli interessati sono invitati a partecipare,
Proff. Alessandra Lunardi e Giampiero Palatucci

Abstract: *We study the semilinear elliptic equation*

$$-\Delta u + g(u)\sigma = \mu$$

with Dirichlet boundary condition in a smooth bounded domain where σ is a nonnegative Radon measure, μ a Radon measure and g is an absorbing nonlinearity. We show that the problem is well posed if we assume that σ belongs to some Morrey class. Under this condition we give a general existence result for any bounded measure provided g satisfies a subcritical integral assumption. We study also the supercritical case when $g(r) = |r|^{q-1}r$, with $q > 1$ and μ satisfies an absolute continuity condition expressed in terms of some capacities involving σ . This is a joint work with Laurent Veron (Univ. Tours - France).