

Méthodes topologiques en analyse non linéaire:développements récents -
Conférence à la mémoire du Professeur Andrzej Granas
4 - 8 juillet 2022

Topological Methods in Nonlinear Analysis: Recent Advances - Conference
in memory of Professor Andrzej Granas
July 4 - 8, 2022

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Compactification of domains and asymptotic properties of PDEs

In this talk, we provide a way of combining the study of solutions of PDEs with the study of their asymptotic properties via compactification of the domain. To achieve this, we define new spaces of functions on which we can study the equations, prove a version of Ascoli-Arzelà Theorem and develop the fixed point index results necessary to demonstrate existence and multiplicity of solutions in these spaces.

This talk is based on a joint work together with Prof. López-Somoza (University of Santiago de Compostela): L. López-Somoza, F.A.F. T.

Asymptotic properties of PDEs in compact spaces. *Journal of Fixed Point Theory and Applications*, 23 (4), 1-27.