

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
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**Applications of Topological Fixed Point Theory to Nonlocal
Differential Equations with Convolution Coefficients**

I will discuss how a nonstandard cone together with topological fixed point theory can be used to deduce existence results for boundary value problems involving a nonlocal differential equation. A particular focus will be equations involving nonlocal coefficients phrased in terms of finite convolutions, which then permits various fractional-order derivative and integral coefficients. Some comparisons with the existing theories will be discussed.