

Ordered Solutions for Degenerate Kirchhoff Problems

Kaye Silva

Federal University of Goiás

This talk concerns a parametrized Kirchhoff type equation with two degeneracy points. The existence of two norm ordered solutions is established for small value of the parameter via a careful analysis of the fiber maps associated to the energy functional. As a consequence we show existence of multiple or even infinitely many solutions to degenerate Kirchhoff equations. Due to the simplicity of the conditions, many applications are given.

In Special Session 28 on Recent Trends in Nonlinear Elliptic PDEs at the Mathematical Congress of the Americas 2025.