

SEMINÁRIOANÁLISE E EQUAÇÕES DIFERENCIAIS

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Symmetry and unique continuation for systems

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Abstract:

In this talk we discuss some recent symmetry and unique continuation results for systems of elliptic partial differential equations satisfying a suitable superlinearity condition. As an application, we obtain uniqueness of positive solutions in the subcritical case, and nonexistence of nontrivial (not necessarily positive) radial solutions in the critical and supercritical regimes, for the Lane-Emden system posed in a ball. Some of our results also apply to general fully nonlinear operators, such as Pucci's extremal operators.

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