

Unique continuation principles for systems

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Abstract. In this talk I will discuss on some recent unique continuation results for systems of elliptic partial differential equations satisfying a suitable superlinearity condition. As an application, we obtain nonexistence of nontrivial (not necessarily positive) radial solutions, in the critical and supercritical regimes, for the Lane-Emden posed in a ball. Some of our results also apply to general fully nonlinear operators, such as Pucci's extremal operators, being new even for scalar equations. This is a joint work with Gabrielle Nornberg and Nicola Soave.