Stationary solutions to some Ginzburg-Landau equations

Simão Correia[1] **and Mário Figueira**[2]

[1] *Center for Mathematical Analysis, Geometry and Dynamical Systems, Department of Mathematics, Instituto Superior Técnico, Universidade de Lisboa Av. Rovisco Pais, 1049-001 Lisboa, Portugal*
[2] *CMAF-CIO, Universidade de Lisboa Edifício C6, Campo Grande 1749-016 Lisboa, Portugal*

Corresponding/Presenting author: simao.f.correia@tecnico.ulisboa.pt

Talk Abstract

We consider the Ginzburg-Landau equation either on a bounded domain or over the whole space. For this equation, stationary solutions solve an elliptic PDE with complex coefficients. Consequently, there is a lack of structure that permits the use of variational arguments. We present some existence and nonexistence results, either through explicit computations or performing a bifurcation analysis. As a byproduct, we study some bifurcation problems starting from multiple eigenvalues, thus generalizing the results of [3].

Keywords: Ginzburg-Landeu, stationary solutions, bifurcation.

Acknowledgements

This work was partially supported by Fundação para a Ciência e Tecnologia, through CAMGSD, IST-ID (projects UIDB/04459/2020 and UIDP/04459/2020) and through the project NoDES (PTDC/MAT-PUR/1788/2020).

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