

The delay as a control tool

Jesús Ildefonso Díaz¹

In a series of papers written in collaboration with Alfonso Casal, and also of both authors jointly with José Manuel Vegas, we considered different delayed partial differential equations in which the delayed term was introduced as a control function (usually of feedback type) in order to attain suitable purposes. Most of those problems were stated in terms of reaction-diffusion systems although we also considered the normalization formulation in terms of complex Ginzburg–Landau equations.

In this talk I will present a short survey of some those works indicating also some possible extensions by applying to the delayed problems some other different techniques such as symmetric rearrangements and energy methods.

¹Instituto de Matemática Interdisciplinar and Depto Mat. Aplicada, Fac. de Matemáticas.
Universidad Complutense de Madrid.
Plaza de Ciencias, 3, 28040-Madrid.
e-mail: ildefonso.diaz@mat.ucm.es