BIFURCATION AND STABILITY OF STEADY STATES OF PARABOLIC PROBLEMS UNDER LOGISTIC FLUX BOUNDARY CONDITIONS

Gustavo F. Madeira [1], Arnaldo S. do Nascimento[2]

[1] Universidade Federal de São Carlos

[2] Universidade Federal de São Carlos

Resumo/Abstract:
We consider the heat equation on a bounded smooth domain supplied with a flux boundary condition driven by a logistic function, an indefinite weight and a positive parameter. Our aim is to completely describe the bifurcation and stability properties of the steady states for the dynamical system associated to the problem and draw the corresponding diagrams. Furthermore, the convergence of the trace of the unique nonconstant steady state solution as the parameter is large is also established.

References

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