

Internal Flow Bifurcation in a T-shaped Cavity

A. Deliceođlu, E. elik, D. Bozkurt

Abstract

Flow development and eddy structure in a T-shaped cavity with lids moving in the same directions have been investigated using both tools from low-dimensional nonlinear dynamics and standard Galerkin finite element method. The homotopy invariance of the index is used to obtain the normal form of the stream function. The control space diagram is constructed for exhibiting the mechanism by which new vortex are obtained in the T-shaped cavity.

References

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Correspondance

adelice@erciyes.edu.tr; Department of Mathematics, Erciyes University, Kayseri, Turkey