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A HOPF BIFURCATION OF INTERFACES IN A DIRICHLET PROBLEM

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Abstract. In this paper, we consider a free boundary problem which is reduced from the propagator-controller system satisfying the Dirichlet boundary condition as a layer parameter is equal to zero. We shall show that the equlibria $(v^*(x), s^*)$ exist and there is a Hopf bifurcation at a critical point τ only for $s^* \in (\frac{1}{3}, 1)$.

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