

IDENTIFICATION OF THE ANTI-DIFFUSION COEFFICIENT FOR THE LINEAR
KURAMOTO-SIVASHINSKY EQUATION

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In this talk, we consider the inverse problem of recovering the second-order coefficient in the linear Kuramoto-Sivashinsky equation from the knowledge of the solution in final time. We formulate the inverse problem as a regularized nonlinear optimization problem, show one local stability result and developed a scheme for the reconstruction of the parameter. We present numerical simulations showing the accuracy of the method.