Stabilization of extrusion process modeled by hyperbolic systems coupled through a moving interface

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In this talk, we consider a physical model of the extrusion process, which is described by two systems of conservation laws coupled through a moving interface. We first study the well-posedness of both the open-loop and closed-loop system. Then using a Lyapunov approach, we obtain the exponential stabilization for the closed-loop system under natural feedbacks.