Optimal heat transport\textsuperscript{1} ANDRE SOUZA, CHARLES R. DOERING, University of Michigan — The transport of heat by buoyancy driven flows, i.e., thermal convection plays a central role in many natural phenomena and an understanding of how to control its mechanisms is relevant to many engineering applications. In this talk we will consider a variational formulation of optimal heat transport in simple geometries. Numerical results, limits on heat transport, and a comparison to Rayleigh-Bénard convection will be presented.

\textsuperscript{1}Research supported by NSF Awards PHY-1205219, PHY-1338407, PHY-1443836, PHY-1533555 and DMS-1515161.