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**Slim IBRAHIM\*** (ibrahims@uvic.ca), Victoria, BC V8Z6L7, Canada, **Yasunori Maekawa** (maekawa@math.kyoto-u.ac.jp), Kyoto, Japan, and **Nader Masmoudi** (masmoudi@courant.nyu.edu), Courant Institute, New York University, New York, NY. *Stability of Kolmogorov flows.*

The aim of this talk is to show enhanced dissipation in view of the stability analysis of the steady Kolmogorov flows. The proof relies on some resolvent estimate on the imaginary axis of the resolvent parameters for the linearized problem around the steady Kolmogorov flows. In particular, our result gives an affirmative answer to numerical conjecture about the size of the basin of attraction. (Received September 26, 2017)