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**Jiancheng Lyu** (jianchel@uci.edu), **Jack Xin** (jack.xin@uci.edu) and **Yifeng Yu\*** (yyu1@math.uci.edu). *Curvature effect in shear flow: slowdown of turbulent flame speeds with Markstein number.*

It is well-known in the combustion community that curvature effect in general slows down flame propagation speeds because it smooths out wrinkled flames. In this talk, I will present a joint work with Jiancheng Lyu and Jack Xin. We have proved that the turbulent flame speed (an effective burning velocity) is decreasing with respect to the curvature diffusivity (Markstein number) for shear flows in the well-known G-equation model. (Received September 24, 2017)