

Rigidity for self-expanding solutions of the mean curvature flows

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Abstract. In this talk, we discuss self-expanders which are the self-expanding solutions of the mean curvature flows. We give a universal lower bound of the bottom of the spectrum of the drifted Laplacian on a self-expander and prove an inequality between the bottom of the spectrum of the drifted Laplacian and the bottom of the spectrum of weighted stability operator. Also we prove some uniqueness properties of hyperplane for mean convex self-expanders.