Tommy Murphy* (tmurphy@fullerton.edu), CSU Fullerton, Dept Mathematics, 800 N. State College Blvd, Fullerton, CA 92831. Instability of Einstein metrics under Ricci flow.

Einstein metrics are fixed points (up to scaling) of Hamilton’s Ricci flow. A fixed point is stable under the flow if, after any small perturbation, it returns to the Einstein metric upon running the Ricci flow. A foundational question is to classify stable Einstein metrics. This is still open, even for Riemannian symmetric spaces. Focusing on the positive case, I will outline recent progress, joint with W. Batat, S. J. Hall and J. Waldron, studying these questions for Hermitian symmetric spaces of compact type, and warped product manifolds of low dimensions. (Received January 28, 2019)