

1163-42-1521      **Ellen Urheim\*** (urheim@math.upenn.edu). *Oscillatory integral operators and geometric stability.*

We will discuss recent work, joint with P. T. Gressman, which proves best-possible decay estimates for a family of multilinear oscillatory integral operators of a form inspired by the general framework of Christ, Li, Tao, and Thiele. These estimates are geometrically stable in the sense that this family of operators is closed under small, smooth perturbations of both the phase and the projections. The proof relies on a novel frequency space decomposition which nearly diagonalizes the problem. (Received September 15, 2020)