1163-AD-1041   **Ellen Urheim*** (`urheim@math.upenn.edu`). *Geometrically stable oscillatory integral operators.*

One group of objects studied in harmonic analysis are oscillatory integrals, an example of which is the Fourier transform. An oscillatory integral operator usually takes an input function, multiplies by a cutoff function and a function oscillating at a rate given by a parameter λ, and then integrates. In general, we expect that the more oscillation we have (the bigger λ is), the smaller the output should be, due to cancellation happening in the integral. We often seek to quantify this relationship via a decay rate that depends on λ. In this talk, we will discuss some particular examples of oscillatory integral operators, including examples from recent work with P. T. Gressman of operators for which the decay rates do not change when we make small enough modifications to the oscillatory function and the cutoff function. (Received September 14, 2020)