

**DIFFRACTION OF SEMICLASSICAL SINGULARITIES BY  
CONORMAL POTENTIALS.**

JARED WUNSCH

Consider a semiclassical Schrödinger operator  $P = h^2\Delta + V - E$ , where  $V$  has a conormal singularity along a hypersurface. The singular structure of  $V$  affects the propagation of semiclassical singularities for solutions to  $Pu = 0$ , and in particular there is a ‘diffraction’ of wavefront set by the interface: singularities are reflected as well as transmitted as they cross the interface transversely. The reflected wave, however, is more regular, with the improvement depending on the regularity of the interface. (Joint work with Oran Gannot.)