1116-35-860   **Jesse Gell-Redman**, **Andrew Hassell** and **Steve Zelditch***
               (`zelditch@math.northwestern.edu`), Department of Mathematics, Northwestern University,
               Evanston, IL 60208. *Distribution of phase shifts in semi-classical potential scattering.*

Let $S_V(E,h)$ be the scattering matrix for the semi-classical Schrodinger operator $-h^2\Delta + V$, where V is smooth and compactly supported. Fix E and consider how the eigenvalues of the unitary operator $S_V(E,h)$ depend on h as $h \to 0$. They are called phase shifts, and are well-known to cluster at the point 1 on the unit circle. On intervals of the unit circle away from 1, the main result is that the phase shifts become uniformly distributed as $h \to 0$ if the classical scattering map has zero measure of fixed points and periodic points. Joint work with Jesse Gell-Redman and Andrew Hassell. There is no assumption that the potential is radial, unlike most prior results. (Received September 14, 2015)