

Timberlake, T., and J. V. Foreman. "Correlation of the Photodetachment Rate of a Scarred Resonance State with the Classical Lyapunov Exponent." *Physical Review Letters* (2003) 90(10): 103001-103004.

Abstract. A metastable resonance state of the periodically driven Gaussian potential well is shown to be scarred on a single unstable periodic orbit of the classical motion. The photodetachment rate of this quantum state is strongly correlated with the Lyapunov exponent of the unstable periodic orbit over a wide range of driving field strengths.