

Abstract Submitted  
for the MAR12 Meeting of  
The American Physical Society

**Extending the Flux Operator with the Husimi Projection** DOUGLAS MASON, MARIO BORUNDA, ERIC HELLER, Harvard University — A common tool among physics in the transport community is the probability flux operator, but connecting this operator to measurement has not received much attention. We have extended the definition of flux by using coherent states, rendering it both measurable and infinitely more useful. For instance, we can use our extended definition to study closed systems and the classical dynamics of individual quantum states, and then connect these dynamics to resonant states interacting with an environment. This analytical technique, based on semi-classics, brings new tools to bear on wavefunction analysis and visualization

Douglas Mason  
Harvard University

Date submitted: 28 Nov 2011

Electronic form version 1.4