

1014-35-856

Guillaume Bal* (gb2030@columbia.edu), 500 W 120th St, New York, NY 10027. *Kinetic models for wave propagation in random media.*

The Wigner transform has recently been used to model the propagation of high frequency waves in heterogeneous media. It characterizes the energy density of the waves and more generally the correlation of two wave fields propagating in two possibly different media. I will show how the Wigner transform can be used to derive kinetic models for high frequency waves and how these models apply to the analysis of the enhanced recocusing properties of time reversed waves propagating in random media. (Received September 25, 2005)