
IVANA ALEXANDROVA, East Carolina University, Greenville, NC 27858, USA

Semi-Classical Resolvent Estimates at the Maximum of the Potential

We prove upper and lower bounds on the resolvent of the Schrodinger operator at an energy, which is the global non-degenerate maximum of the potential. Our upper bound improves the earlier bound of Nakamura '91 and our lower bound shows that our upper bound is near sharp. We next discuss an application of our upper resolvent estimate to proving an asymptotic expansion of the total scattering cross-section.