

Kensuke KOBAYASHI  
Graduate School of Science, Osaka University

Title : Shot Noise in Spin-dependent Transport through Mesoscopic Systems

Abstract :

Recently, the fluctuation of the current ("shot noise"), namely the fluctuation of the number of electrons passing through mesoscopic systems, is invoking great interest. Actually, it gives quantitative information of the nonequilibrium dynamics of electrons, which enables us to investigate the spin-dependent transport. Regarding this, I will discuss our recent study on the current fluctuation in a quantum dot in the Kondo regime, magnetic tunnel junctions, and quantum wires with strong spin-orbit interaction.