

Microwave Generation and its Tunability by Field and Current in Spin-torque Nano Oscillator

Contributed
Talk

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A spin-torque nano-oscillator (STNO) is a nanosized device that consists of two ferromagnetic layers, one with fixed magnetization and the other with a variable magnetization direction, separated by a thin non-magnetic conductive/insulative layer. In this talk, I will discuss the microwave oscillation generated by the STNO and different ways to enhance its frequency from 6 GHz to above 300 GHz. To start with, I will discuss the numerical analysis of the Landau- Lifshitz-Gilbert-Slonzewski (LLGS) equation and the tunability of the frequency by applied magnetic field and current.
