

Title : Spintronics for next-generation nanodevices

Abstract

Spintronics is one of the emerging fields of research exploiting the next-generation nanodevices by utilizing the spin degree of freedom of electrons. The spintronic devices are of technological relevance for high-density memory and logic application as it provides fast operation with low power consumption. Fundamental science and device technology for spintronics research has been developing very rapidly. Spintronics researches are now facilitating various angular momentum carriers such as magnon, phonon, and photon. In this talk, I briefly review the recent discoveries and summarize my research results in this field.