

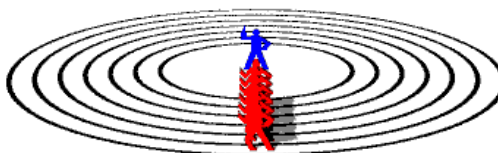
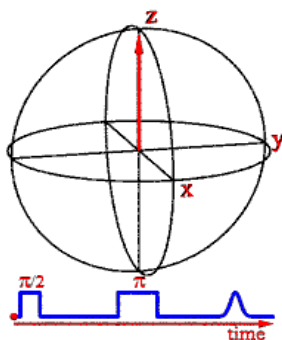
Experimental Condensed Matter Physics Seminar

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Wednesday 9/20/2006, 4:30pm
Willet Science Center 101

From Tops to Phase Sensitive Pulsed EPR Spectrometers



Electron Paramagnetic Resonance (EPR) as a way to study the behaviors of electron spins can be seen as a quantum analogy to the study of the precession of a classical top. It is a technique very similar to NMR. The main difference is that EPR studies the spins of un-paired electrons rather than spins of nuclei. Traditionally, EPR had always been a continuous-wave (CW) based method, which means that it is not sensitive to the dynamic process of spins. In recent years, good R&D efforts have been devoted to developing pulsed EPR spectrometers. However, none of them are truly sensitive to the phase information carried by spins. I will demonstrate an effort of designing a phase-sensitive pulse EPR spectrometer, and its potential in research.

Please join us for light refreshments at 4:15pm outside WSC 109.