

# Physics Department Seminar

Friday February 8<sup>th</sup>, 2008

11:00am in PhSc 105

## “Transient gratings: a window on electrons and their spin”



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### Abstract:

Despite years of sustained interest in "spintronics" (the physics and application of electron spin in semiconductors), basic quantities such as the spin conductivity and spin diffusion rate have remained nearly unmeasured. I will present results from an optical "transient grating" experiment in which we measured spin diffusion and found it to be significantly slower than diffusion of the electrons' charge, overturning years of conventional wisdom in solid-state physics.

