Physics AT QUEENS COLLEGE

Colloquium Notice

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Optofluidics for High Speed Microscopy

Flow cytometry has become a benchmark technology due to its ability to individually characterize extremely large collections of particles or cells. Despite its impressive throughput, flow cytometry requires labeled objects and typically looses all spatial information of each cell. Instead of just quantifying scattering and absorption cross-sections, as is done in flow cytometry, it would be highly advantageous to capture full two or three-dimensional images of cells at the same throughput. Imaging, and especially fluorescence and three-dimensional imaging, is extremely challenging at these speeds due to the required short exposure time and fast acquisition rates. In this talk I will address some of the strategies that our lab is using to address these problems, primarily parallelization, fluidic manipulation, and alternative optical contrast mechanisms.

Monday
March 12, 2012
Starts at 12:15 PM
Coffee at 12:00 PM
Physics Conference Room, SB B326