



KOÇ UNIVERSITY

Math-Science Seminar

Speaker: Mathias Reufer (Department of Physics, University of Fribourg, Switzerland)

Title: Amorphous photonic materials

Date and Time: Thursday, September 8, 4:45 pm.*

Place: Room Z42, Science Building, Koç University, Rumelifeneri Yolu, Sariyer, 34450 Istanbul.

Abstract: We study photonic properties of thin films of nano- and mesosized colloidal particles. Short-range order is induced via repulsive interactions. This in turn leads to Bragg backscattering resonances in the optical transmission spectra. A strong wavelength dependence of the transmission is observed depending on the characteristic length scale in the system. We can tune this characteristic length scale either by tuning the interaction potential between nanoparticles or by selection of the size of the particles.

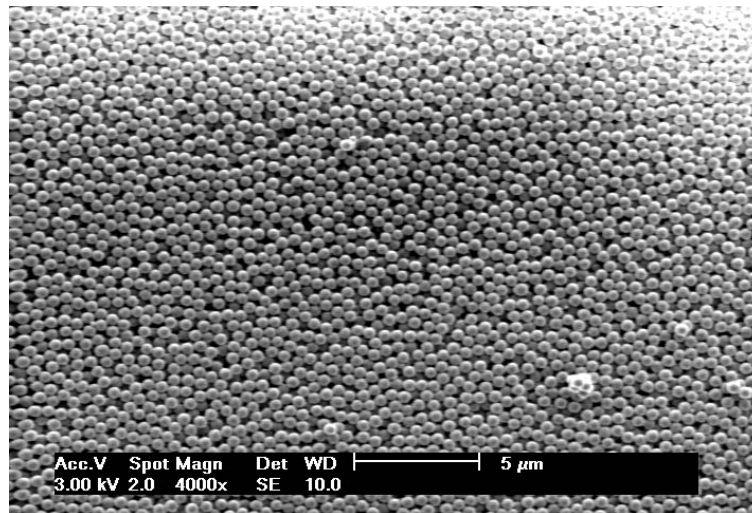


Figure Picture of the surface of an disordered thin film of ca 500nm diameter SiO_2 spheres.

*Refreshments to be served in Science Building outside of Room Z42 at 4:30 pm.