



COLLOQUIUM



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Thermodynamic Properties of Mesoscopic Systems

Abstract

In last few decades mesoscopic physics has emerged as a prominent area of research and development. Mesoscopic physics deals with the interface between the microscopic world of atoms and the macroscopic bulk samples that are in the thermodynamic limit and divulges specific details how quantum phenomena evolve into thermodynamic properties. It also promises to give rise to a new generation of electronic devices that work on quantum principles. Although these devices can revolutionize the electronic industry, have not been achieved yet as it is difficult to control their stability. In this talk I shall discuss three major properties of mesoscopic systems; (i) transport property, (ii) magnetic induction generated by transport current and (iii) response to electromagnetic field – capacitance.

3:30-4:30 p.m., Friday, September 21st, McLane Hall 258