# Algebra Seminar

## *Molecular vibration: group representation theory in chemistry and physics*, II

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ABSTRACT: I will start the second lecture with some explicit examples of the groups introduced in Lecture #1: symmetry groups of finite subsets $\Delta \subset \mathbb{R}^3$ and the point groups of some molecules. Then I will begin with a brief introduction to classical mechanics; this may very well spill over into Lecture #3. At the outset, I plan to derive the Euler-Langrange equations from Hamilton's "principle of least action". Then I will specialize this material in order to obtain the equations of motion for the harmonic oscillator in several degrees of freedom.

Monday, February 8, 2010
1:40 – 2:30 pm
Room 617, Wachman Hall
Department of Mathematics