Chez Pierre

Presents ...

**Monday, December 4, 2017**

**12:00pm Noon**

**MIT Room 4-331**

# Chez Pierre Seminar

**Daniel Podolsky –** Technion, Israel Institute of Technology

"Buckling transition and antiferromagnetic liquids in two dimensions"

Crystals of trapped ions are an example of ordered states of matter that emerge from the competition between kinetic energy and repulsive forces in confined volumes. These systems can give us unique access to interesting questions in classical and quantum magnetism. For instance, I will show that ions confined to 2D undergo a buckling transition, which is described by a six-state quantum clock model. Motivated by this system, I will discuss the melting of 2D antiferromagnets, and will show that under certain conditions it is possible to stabilize an antiferromagnetic liquid in two dimensions.