Condensed Matter Theory Center Seminar

Tuesday, October 14 at 11:00 AM

2205 Physics Building

Speaker: Jainendra Jain (Penn State)

Title: 25 Years of Composite Fermions

Abstract: The fractional quantum Hall effect is one of the most amazing emergent

phenomena resulting from interactions. Many of its features are securely understood in

terms of topological particles called composite fermions, which are bound states of electrons

and quantized vortices. After a review of composite fermions and their defining features, I

will report on recent progress on subtle phenomena that arise from a weak residual

interaction between composite fermions, with include paired states, fractional quantum Hall

states, spin physics, and quantum crystals of composite fermions.

Host: Sankar Das Sarma

http://www.physics.umd.edu/cmtc/seminars.html