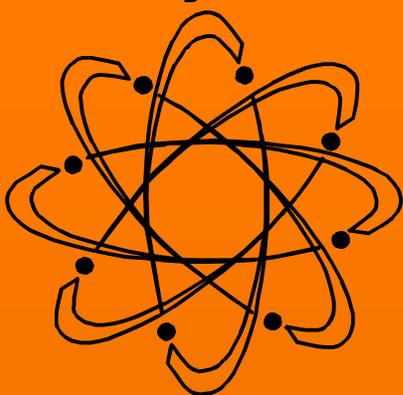


**The Department of  
Physics**



**Carnegie Mellon**

# **McWilliams Center for Cosmology Colloquium**

**Dr. Sarah Shandera  
Columbia University**

**“Non-Gaussianity: Probing the  
fundamental picture of inflation”**

**Friday, November 14, 2008**

**2:30pm**

**DHA 301D**

*Abstract:*

*Inflation successfully explains many large scale features of our observable universe. Remarkably, it also generates the small fluctuations in the primordial density that evolve into the cosmological structures we see today. Observations of the cosmic microwave background and large scale structure may soon probe the interactions of the field that sourced inflation. These interactions make the spectrum of fluctuations non-Gaussian, and their measurement would provide a fantastic handle on the fundamental physics of the very early universe. I will motivate the study of non-Gaussianity and demonstrate how even qualitative observations will reveal interesting properties of physics at the highest energies.*