

# Cosmological Seed Magnetic Field from Inflation



Prof. Bharat Ratra  
Distinguished Professor  
Kansas State University

Tuesday

August 30

12:30 P.M.

Rm 184 NSH

A cosmological magnetic field of nG strength on Mpc length scales could be the seed magnetic field needed to explain observed few microG large-scale galactic magnetic fields. I first briefly review the observational and theoretical motivations for such a seed field, two galactic magnetic field amplification models, and some non-inflationary seed field generation scenarios. I then discuss an inflation magnetic field generation model. I conclude by mentioning possible extensions of this model as well as potentially observable consequences.