



Università degli Studi di Cagliari  
Dipartimento di Fisica



Istituto Nazionale di Fisica Nucleare  
Sezione di Cagliari  
High Energy Theory  
Group

## Avviso di Seminario

Giovedì 30 Giugno 2005  
h. 11:00 – Aula B

**Prof. Elliot LEADER**  
Imperial College - London

### Higher twist and positivity constraints in polarized Deep Inelastic Scattering

The study of the polarized parton densities in the nucleon is, at present, a major theme in both experimental and theoretical research. The world data on polarized DIS suffers from the absence of experiments at very high  $Q^2$  and the existence of a vast number of results at small  $Q^2$ , where the direct use of perturbative QCD cannot be justified. I will discuss two issues which arise as a result of this situation: 1) attempts to overcome these difficulties by the inclusion of higher twist effects; 2) the discovery that results for the polarized parton densities are very sensitive to the positivity constraints utilised in the analysis.