

SEMINÁŘ OTF ÚJF, ŘEŽ

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**Nucleon-nucleon scattering  
in the  $N_c \rightarrow \infty$  limit**

**Abstrakt**

In this talk, the implication of the extreme large  $N_c$  limit for nucleon-nucleon scattering is examined. Several arguments will be shown strongly suggesting that the logarithm of a typical S-matrix element is proportional to  $N_c$  (both its real and imaginary part). From there, an exact formula for the nucleon-nucleon cross section is derived and an interesting result that determines the inelastic cross section to be exactly 1/8 of the total cross section emerges.

**Seminář se koná ve středu 12. 2. 2014 v 10:30 hod.  
v zasedací místnosti ÚJF Řež**

A. Ciepły/otf