

Institut Ruđer Bošković  
ZAVOD ZA TEORIJSKU FIZIKU  
Bijenička c. 54  
ZAGREB, HRVATSKA

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SEMINAR ZAVODA ZA TEORIJSKU FIZIKU  
(Zajednički seminari Zavoda za teorijsku fiziku,  
Zavoda za eksperimentalnu fiziku i Zavoda za teorijsku fiziku PMF-a)

# $\theta$ -deformed Space and its Symmetries

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*Mjesto: IRB, seminar 1. krila*

## **Abstract:**

We review some of the properties of the  $\theta$ -deformed space ( $[\hat{x}^\mu, \hat{x}^\nu] = \theta^{\mu\nu}$ ). Especially, the concept of derivatives is introduced in a rather general way. Using the  $\star$ -product approach we derive the deformation of the bialgebra of classical diffeomorphisms and establish the tensor calculus. As a special example deformed Lorentz symmetry is presented.

Voditeljica seminara:

Dr. Blaženka Melić