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ZAVOD ZA TEORIJSKU FIZIKU  
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SEMINAR ZAVODA ZA TEORIJSKU FIZIKU  
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## Deformed symmetries in noncommutative field theories

**Marija Dimitrijevic**  
INFN Gruppo Collegato di Alessandria, Italy

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### Abstract:

In this talk we discuss the problem of symmetries in noncommutative field theories. The twist approach is used to derive deformed symmetries. In this approach the algebra of symmetry generators remains undeformed, but the Leibniz rules for the generators change. We give some examples. In the case of the canonically deformed space the twisted Poincare and diffeomorphism invariance are derived. The twisted diffeomorphism invariance enables the construction of the deformed gravity theory. By applying the twist approach to the superspace we obtain the nonanticommutative superspace. A deformation of the Wess-Zumino model is then discussed.

Voditeljica seminara: Dr. Kornelija Passek-Kumerički  
([passek@thphys.irb.hr](mailto:passek@thphys.irb.hr))