



Σεμινάριο Γεωμετρίας

**Deformations of ideals in Lie algebras**

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**Περίληψη**

The main aim of this talk is to introduce the differential graded Lie algebra which controls the deformation problem of an ideal inside a Lie algebra. Making use of this algebraic structure, natural geometric questions will be answered such as: under which assumptions a Lie ideal is rigid/stable and how much differs the deformation theory of Lie ideals from their underlying deformation theory as Lie subalgebras. Last but not least, we will mention how the deformation theory of Lie ideals goes beyond the category of Lie algebras and fits naturally into the wider context of Lie 2-algebras. This fact enlightens the reason why this classical deformation problem had not been solved so far. This is a joint work (in progress) with Madeleine Jotz.

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