Lie Groups, Lie algebras and representions

ECTS : 6

Description du contenu de l'enseignement :

The theory of groups and their representations is a central topic which studies symmetries in various contexts occurring in pure or applied mathematics as well as in other sciences, most notably in physics.
Lie theory (i.e. the study of Lie groups and Lie algebras) has played an important role in mathematic ever since its introduction by the Norwegian mathematician Sophus Lie in the 19th century. It has had a profound impact in physics as well.
The aim of this course is to provide an introduction, from the mathematical perspective, of the classical concepts and techniques of Lie theory. The course will in particular deal with Lie groups, Lie algebras (of finite dimension) and their representations, and include the study of numerous examples.
This course will be taught at ENS.
Link to the course

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1/1