



Instituto Universitario de Investigación  
de Matemáticas  
y Aplicaciones  
Universidad Zaragoza



Departamento de  
Matemáticas  
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# Seminario de Álgebra

## Conferencia

por

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título:

## "A Kurosh-type theorem for some class of Lie algebras"

**Abstract:** Kurosh theorem for groups provides the structure of any subgroup of a free product of groups and its proof relies on Bass-Serre theory of groups acting on trees. In the case of Lie algebras, such a general theory does not exist and the analogue of Kurosh theorem is false in general, as it was first noticed by A.I. Shirshov. However, we prove that, for a class of positively graded Lie algebras satisfying certain local properties in cohomology, an analogue of such a structure theorem holds true for subalgebras generated by elements of degree 1. Such class consists of Koszul Lie algebras, in which all the subalgebras that are generated in degree  $\mathbb{N}$  are Koszul.

**Fecha:** Miércoles, 25 de mayo de 2022

**Hora:** 13:00 horas

**Lugar:** Seminario de Álgebra, Edificio de Matemáticas, 2ª planta