

Seminar

Hom-Lie algebra structures on Lie algebras

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Abstract: Hom-Lie algebras can be considered as a deformation of Lie algebras. A Hom-algebra structure is a multiplication on a vector space where the structure is twisted by a homomorphism. The structure of Hom-Lie algebra was introduced by Hartwig, Larsson and Silvestrov. They also introduced the concept of a hom-Lie algebra, which is a non-associative algebra satisfying the skew symmetry and the σ -twisted Jacobi identity. When $\sigma = id$, the hom-Lie algebras degenerate exactly the Lie algebras. In this talk we study Hom-Lie structures for some classes of non simple Lie algebras. For example we determine hom-Lie algebra structures for oscillator Lie algebras, general Witt algebra, solvable Lie algebra with abelian nilpotent radical of codimension one and etc.

- **Dia:** 27 de Julho de 2023, às 16h;
- **Local:** Sala de Reuniões, Departamento de Matemática, UBI