

# **LIE ALGEBROIDS, GROUPOIDS AND HOPF ALGEBROIDS: A BRIEF INTRODUCTION.**

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Abstract: Lie algebroids, groupoids and Hopf algebroid appear in various contexts of many branches of mathematics and mathematical physics. They are rich mathematical objects and worthy of studying in their whole relationships. In the first part of this talk, we will recall with details the definition of each of these objects, and expound several examples along the exposition. The second part will be devoted to the relation, mainly in terms of adjoint functors, between certain classes of these objects.