

Department of Mathematics, BGU

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# Group Theory and Geometry (GGT)

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*On Sunday, April, 15 2018*

*At 14:30 – 15:30*

*In 101-*

Arpan Kabiraj (BGU)

will talk about

## **Center of the Goldman Lie algebra**

Abstract: Abstract. In 1980s Goldman introduced a Lie algebra structure on the free vector space generated by the free homotopy classes of oriented closed curves in any orientable surface  $F$ . This Lie bracket is known as the Goldman bracket and the Lie algebra is known as the Goldman Lie algebra. In this talk I will discuss some basic properties of Goldman bracket and its relation with Teichmüller space. I will also show how techniques from geometric group theory could be used to compute center of the Goldman Lie algebra. I will mention some open problems related to Goldman bracket.