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Arpan Kabiraj* (arpan.into@gmail.com), Department of Mathematics, Ben-Gurion University, 8410501 Beer-Sheva, Israel. *Center of the Goldman Lie algebra.*

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. (Received January 04, 2018)