Student Geometry Seminar

國立清華大學數學系 學生幾何研討會

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講題 Kapranov L-infinity algebras

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Abstract

In his study of Rozansky–Witten invariants, Kapranov discovered a natural $L_\infty[1]$-algebra structure on the Dolbeault complex $\Omega^{0, \bullet}(T_X^{1, 0})$ of an arbitrary Kähler manifold X, where all multibrackets are $\Omega^{0, \bullet}(X)$-multilinear except for the unary bracket. Motivated by this example, we introduce an abstract notion of Kapranov L-infinity algebras, and prove that associated to any dg Lie algebroid, there is a natural Kapranov L-infinity algebra. We also discuss the linearization problem. This is a joint work with Ruggero Bandiera, Seokbong Seol, and Mathieu Stiénon.

Find more information at https://sites.google.com/view/sgsnthu/home