Generalized Kähler structures, Lie bialgebroids, and holomorphic Poisson groupoids

Marco Gualtieri University of Toronto

Abstract:

After reviewing the description in [1] of a generalized Kähler metric as a Lagrangian submanifold of a holomorphic symplectic bibundle, I will outline two recent related advances: first, I will review recent work with Lennart Döppenschmitt concerning the induced geometry on the space of GKähler metrics in a fixed class; second, I will describe an extension from symplectic type to the general case, found recently with my student Yucong Jiang. This involves a generalized Lagrangian submanifold of a holomorphic Poisson bibundle constructed by deforming a holomorphic Poisson groupoid via a Maurer-Cartan element.

[1] https://arxiv.org/abs/1804.05412