

1058-53-83

Hans-Christian Herbig, Srikanth Iyengar and Markus J Pflaum*

(markus.pflaum@colorado.edu), Department of Mathematics, University of Colorado, UCB395, Boulder, CO 80309. *Formal deformation quantizations of singular symplectically reduced spaces.*

We discuss the so-called BFV method to construct formal deformations quantizations of symplectic quotients of Hamiltonian systems. We explain that under certain conditions among which is the requirement that the Koszul complex of the moment map of the Hamiltonian system is acyclic the BFV method allows to construct deformations quantizations in the presence of singularities. We then discuss examples coming from the special case of linear Hamiltonian torus actions. (Received February 03, 2010)