1100-18-60  Hans-Christian Herbig (hcherbig@web.de), Prague, Czech Rep, and Markus J Pflaum* (markus.pflaum@colorado.edu), University of Colorado UCB 395, Department of Mathematics, Boulder, CO 80309. Hochschild homology of algebras of smooth functions on orbit spaces. Preliminary report.

This talk is on work in progress. We show that a localization method in Hochschild homology theory, which essentially goes back to ideas by N. Teleman, can be used to obtain a qualitative picture of the Hochschild homology of the algebra of smooth functions on the orbit space of a compact Lie group action. The striking observation hereby is that this unveils a connection between the orbit type stratification of the orbit space and the Hochschild homology of its algebra of smooth functions. (Received January 26, 2014)