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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)