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**Anthony M Bloch\*** ([abloch@umich.edu](mailto:abloch@umich.edu)), Dept. of Mathematics, University of Michigan, Ann Arbor, MI 48109. *Representations of Integrable Geodesic Flows on Manifolds.*

I shall describe here related pieces of work on the geometry and dynamics of integrable geodesic flows on various manifolds of interest. This is joint work with P. Crouch, A. Iserles, J. Marsden, T. Ratiu and and A. Sanyal. In particular I will consider a generalization of the symmetric representation of the rigid body flows to flows on Stiefel manifolds. This contains the rigid body flows and the geodesic flow on an ellipsoid as special cases. I will also discuss a class of left-invariant geodesic flows on the symplectic group which is not contained in the Mischenko-Fomenko class. (Received February 08, 2006)