

Meeting: 1003, Atlanta, Georgia, SS 12A, AMS-SIAM Special Session on Stochastic, Large-Scale, and Hybrid Systems, I

1003-34-935 **Yuri S Ledyaev*** (ledyaev@wmich.edu), Department of Mathematics, Western Michigan University, Kalamazoo, MI 49008. *Infinite-dimensional variant of Chow-Rashevskii theorem.*

We discuss new sufficient conditions for global controllability of affine control systems on infinite-dimensional manifolds. These conditions are stated in terms of Lie brackets of vector-fields and their iterates and are similar to classical Chow-Rashevskii's conditions for connectivity of points on finite-dimensional Riemannian manifolds. (Received October 01, 2004)