Mathematics, Statistics, and Computer Science **@ UIC**

Geometry, Topology and Dynamics Seminar

Friedlander-Milnor's problem for diffeomorphism groups

Sam Nariman (Northwestern University)

Abstract: Let G be a finite dimensional Lie group and G^delta be the same group with discrete topology. The natural homomorphism from G^delta to G induces a continuous map from BG^delta to BG. Milnor conjectured that this map induces a p-adic equivalence. In this talk, we discuss the same map for infinite dimensional Lie groups, in particular for diffeomorphism groups and symplectomorphisms. In these cases, we show that the map from BG^delta to BG induces split surjection on cohomology with finite coefficients in ''the stable range''. If time permits, I will discuss applications of these results in foliation theory, in particular flat surface bundles.

Monday, March 27 at 3:00 PM in SEO 636