

1077-60-695

**Fariborz Asadian\*** (asadianf@fvsu.edu), Fort Valley State University, 1005 State University Drive, Department of Mathematics & Computer Science, Fort Valley, GA 31030. *Smooth Measures and Stochastic Analysis in Abstract Wiener Space.*

In this talk, we discuss smoothness properties of measures (in the sense of Fomin) generated by solutions of infinite dimensional stochastic differential equations driven by a Wiener process in a separable Banach space. We consider ordinary stochastic equations as well as semi-linear equations with drift coefficients containing unbounded terms. The main tool used in this investigation is the infinite dimensional version of Girsanov Theorem. The results obtained will be applied to explore regularity properties of the solutions of infinite dimensional forward parabolic equations. (Received September 10, 2011)