1106-60-104 **Indranil SenGupta*** (indranil.sengupta@ndsu.edu), NDSU Dept 2750, Minard Hall 408E12, Department of Mathematics, North Dakota State University, Fargo, ND 58108-6050. *Heavy-tailed Lévy processes in pricing exotic options in finance.*

In this talk applications of heavy-tailed distributions will be presented in connection with pricing different exotic options in financial market. Dynamics of stock price will be modeled using various exponential Lévy processes and partial integro-differential equations (PIDE) will be derived for the option price. Such equations will be solved using various transform methods. Numerical simulations will be provided to calibrate the model with real market data for exotic options such as Asian options, Lookback options and Barrier options. (Received July 16, 2014)