1086-58-1650    **Ambar Niel Sengupta\*** (`sengupta@math.lsu.edu`), Department of Mathematics, Louisiana State University, Baton Rouge, LA 70803. *Geometry and Functional Integrals over Path Spaces.* Preliminary report.

The traditional notion of connections on principal bundles can be extended to parallel-translation on a certain generalization of bundles over spaces of paths. These new structures involve two, or more, gauge groups rather than one. In this talk we will describe these geometric ideas and discuss functional integrals related to these structures. (Received September 23, 2012)