1145-60-614   **Upul H Rupassara*** (`upul@siu.edu`), Southern Illinois University, Department of Mathematics, 1245 Lincoln Drive, Carbondale, IL 62901. *Joint exit time and place distribution for Brownian motion on Riemannian manifolds.* Preliminary report.

We derive the formulas for the joint distribution of first exit time T, and place X_T of Brownian motion from normal balls of sufficiently small radius, in terms of the curvature of the Riemannian Manifolds. We use the asymptotic expansion of the Laplace transform of T to obtain the formulas for the different moments of the exit time. Additional curvature conditions are derived for the case where T and X_T are statistically independent. (Received September 17, 2018)