Speaker: Lawrence Breen (Paris 13 University)

Title: Differential Forms: an intrinsic perspective

Abstract:
I will present a recent perspective regarding the notion of a differential n-form on a manifold. This was originally proposed by A. Kock within the framework of synthetic differential geometry, but is applicable in a much wider context. I will also explain how this provides a new interpretation of the classical notions of connection and curvature on a principal bundle. If time permits, I will also briefly discuss the analogous notions for gerbes.