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Title: Borel-Serre type constructions for Loop Groups

Abstract: (Joint work with Punya Satpathy) For a reductive group G , Borel and Serre introduced a compactification of a large class of arithmetic quotients of the symmetric space attached to G . This has proved to be a useful tool in the study of cohomology of arithmetic groups. After reviewing some aspects of their construction, we explain how to generalize the Borel-Serre construction to the case when G is replaced by an infinite-dimensional analogue LG , the loop group of G . Along the way, we describe a partition of an arithmetic quotient of LG , inspired by the work of P.-H. Chaudouard for GL_n , and related to earlier constructions of Harder-Narasimhan and Arthur-Langlands.