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Embeddings of Loop groups and G -bundles on nodal curves. Preliminary report.

A well studied space in algebraic geometry and conformal field theory is the moduli space of semi stable vector bundles (or more generally, principal G -bundles) on a fixed smooth projective curve. For degeneration arguments it is of interest to understand the moduli space when the curve is allowed to develop nodes, unfortunately in this case the moduli space becomes non compact and more difficult to work with. In this talk I'll explain how a certain group LG called the loop group can be used to study such moduli problems. In particular using a compactification of the loop group I show how one can compactify the moduli space of G -bundles on a nodal curve. (Received July 15, 2013)