Abstract

Stability condition of bundles plays a crucial role in the construction of moduli spaces. The paper "stable bundles on a compact Riemann surface" by Ramanathan inspired the definition of R-stability for Higgs bundles. In this talk, I will introduce a generalization of this idea to parahoric G-Higgs bundle. I will use this stability as the one to construct a moduli space of the parahoric G-Higgs bundles. Finally, I will give some examples when G is taken to be GLn, when we will recover the usual sense of moduli spaces of parahoric bundles.