

# Escobar-Yamabe compactification for Poincare-Einstein manifolds and rigidity theorems

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## Abstract

I will talk about two types of Escobar-Yamabe compactification for Poincare-Einstein manifolds and derive some inequalities between the Yamabe constants for the conformal class of compactified metric and the Yamabe constant for the conformal infinity. Based on those inequalities, I will also give some rigidity theorems. This work was motivated by recent work of Gursky-Han, and collaborated with M. Lai and X. Chen.