

Weak Cosmic Censorship and Second Law of Black Hole Thermodynamics in Generic Gravity Theories

Feng-Li Lin

Department of Physics, National Taiwan Normal University

E-mail: linfl@ntnu.edu.tw

Abstract

Roger Penrose proposed the weak cosmic censorship conjecture to hide the naked singularity of a black hole behind its horizon. This can be understood as implied by the second law of black hole thermodynamics, which states that the area of a black hole horizon can never be decreased. However, it is unclear if this conjecture holds for generic theories of gravity. In this talk, I will show that the answer is positive.