

Asymptotically Flat Hairy Black Holes with Minimally Coupled Scalar Potentials

Date 17:00 - 18:00, November 26 (Tuesday), 2024

Place 1131, Building 9 (Zoom ID: 881 5903 1592)

Speaker

Prof. Xiao Yan Chew (周孝严)

Jiangsu University of Science and Technology

(江苏科技大学)



Abstract

In this seminar, I will present some recent progress (2210.01313, 2307.13972, 2401.09039, 2405.04921, 2405.06407) of my research work on the scalarization of the hairy black holes. In particular, the Einstein gravity minimally coupled with some non-positive definite scalar potentials, that could give rise to the scalarization of the asymptotically flat hairy black holes, which can be bifurcated from the electrovacuum black holes. Thus, I will discuss how the profiles of scalar potentials could determine some properties of hairy black holes, such as the Hawking temperature, linear stability and etc.

Biography

Prof. Dr. Xiao Yan Chew is a Chinese Malaysian who obtained his PhD from the University of Oldenburg in Germany at 2019. Then, he was working as a postdoctoral researcher in Pusan National University in Korea from 2019-2023. Currently, he is working as an associate professor in the Jiangsu University of Science and Technology. His main research interest is to study the astrophysical signatures of compact objects such as the hairy black holes, traversable wormholes and scalarons.