Astrophysics Seminar

Prof. Minyong Guo

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Coport: A New Public Code for Polarized Radiative Transfer in a Covariant Framework

Time: 15:00-16:00, 27 August (Tuesday), Shanghai time

Host: Yosuke Mizuno

Location: N601

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Meeting ID: 222 147 414 (Password: 123456)

Abstract:

General relativistic radiative transfer calculations are essential for comparing theoretical models of black hole accretion flows and jets with observational data. In this work, we introduce Coport, a novel public code specifically designed for covariant polarized ray-tracing radiative transfer computations in any spacetime. Written in Julia, Coport includes an interface for visualizing numerical results obtained from HARM, a publicly available implementation of the general relativistic magnetohydrodynamics code.

Biography:

Minyong Guo, an associate professor, graduated with a bachelor's degree from the University of Science and Technology Beijing in 2014 and obtained his Ph.D. from Beijing Normal University in 2019. During his doctoral studies, he was a joint Ph.D. student at the Perimeter Institute for Theoretical Physics from 2017 to 2019. From 2019 until May 2021, he conducted postdoctoral research at the High Energy Physics Center of Peking University. Since May 2021, he has been working in the Department of Physics at Beijing Normal University. His current research focuses on black hole image. To date, he has published over 40 research papers, which have been cited more than 1,700 times, resulting in an h-index of 24.