



Contribution ID: 633

Type: **Invited talk in the parallel session**

Shadows and photon rings of asymmetric thin-shell wormholes

Tuesday, 6 July 2021 09:30 (15 minutes)

considering the asymmetric thin-shell wormhole (ATSW) model, we find that the impact parameter of the null geodesics is discontinuous through the wormhole in general and hence we identify novel shadows whose sizes are dependent of the photon sphere in the other side of the spacetime. Furthermore, we show evident additional photon rings from the ATSW spacetime. Moreover, a potential lensing band between two highly demagnified photon rings is found. Our analysis provides an optically observational signature to distinguish ATWs from black holes.

Primary author: GUO, Minyong (Beijing Normal University)

Presenter: GUO, Minyong (Beijing Normal University)

Session Classification: Wormholes, Energy Conditions and Time Machines

Track Classification: Alternative Theories: Wormholes, Energy Conditions and Time Machines