

Speaker: Dimitrios Psaltis

Affiliation: Georgia Institute of Technology

Time: 3:00 pm – 4:00 pm

Title: Testing General Relativity with Black-Hole Images

Abstract: The imaging of black-hole shadows with the Event Horizon Telescope has opened a new window into the strong-field spacetimes of these extreme astrophysical objects. I will first discuss the technological and theoretical advances that led to the first images of the black holes in the centers of the M87 galaxy and of the Milky Way. I will describe how this observation allows us to perform new tests of General Relativity. I will explore the connection of the new results to tests of gravity with other astrophysical and cosmological probes. I will conclude with a prognosis on what ground-based observations of shadows can tell us about black-hole metrics and the underlying theory of gravity.