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Stellar-Mass Black Hole-Star Binaries and What We Would See
HARRISON GOTT, DIMITRY AYZENBERG, NICOLAS YUNES, Montana State Univ — When a black hole is illuminated by a light source, its event horizon will cast a shadow because some photons will fall into the black hole and never reach the observer. Typically, the light source one has in mind is an accretion disk that surrounds the black hole, but in principle any light source will produce a shadow. In this talk, I will discuss the possibility of observing a black hole shadow produced by light emitted by a stellar companion. I will present simulated images of these shadows, and calculate the baseline of space telescopes that would be required to observe it.

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