

Binary Black Holes in Circumbinary Disks as Multimessenger Sources

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Astrophysics has undergone a transformative shift, fueled by groundbreaking observations such as the Event Horizon Telescope's imaging of the supermassive black holes M87 and SgrA and the advent of gravitational wave astronomy. These achievements underscore the need for advanced theoretical modeling to connect observations with the underlying physics. This talk explores the potential of binary black holes immersed in gaseous environments as sources of multimessenger signals, from fully relativistic magnetohydrodynamics (GRMHD) simulations to general relativistic radiative transfer (GRRT).

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