

Abstract Submitted
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Intrinsic Gravitational Ballooning Modes, and Associated Fields, Sustained by Black Hole Binaries (in parallel to GR Gravitational Waves)¹ BRUNO COPPI, MIT — Intrinsic gravitational ballooning modes, and the associated fields and currents, are found to be sustained by the time dependent tridimensional gravitational fields of Black Hole binaries. The modes are ballooning in the "vertical" direction (referring to the binary angular momentum), rippled in the radial direction and propagating in the toroidal direction with a frequency (of the main mode component) equal to twice the binary rotation frequency. Characteristic mode particle resonances [1] provide a means to transfer energy from high to low energy populations offering an explanation for the absence of high energy radiation emission as the collapse of Black Hole binaries is observed.

[1] B.Coppi, Pl. Phys. Rep. **45** , 438 (2019).

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