



APC colloquium

Friday November 13th

11am (on zoom)

GW190521 and alike: what can we learn from multi-band observations

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In this talk I introduce GW event GW190521 and describe its properties. Then I will assume its association with the optical flare observed by the Zwicky Transient Facility in an Active Galactic Nucleus (AGN). After giving some plausible explanation of this association, I will move to possibility observing GW190521-like event(s) with LISA. LISA should detect few tens of stellar-mass black hole binaries few years before the 3rd generation of ground based GW interferometers observes their merger. Assuming that some of these binaries are embedded in gaseous circum-nuclear disk in AGN, we will discuss potentially detectable features in GW signal due to interaction of binary with the gas and with a massive black hole in the galactic centre.