

Dual-line detectability of ultra-compact X-ray binaries: LISA and LVK

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Ultra-compact X-ray binaries are promising sources for LISA because of their short orbital periods. For such binaries with neutron-star primaries, that have been spun-up by angular momentum donations to \sim ms periods, internal quadrupole moments sourced by accretion-built mountains may be large (e.g. in 4U 1728–34 and 4U 1820–30). Such systems may thus be simultaneously visible to LVK/ET and LISA. I will discuss how a “dual-line” detection of this sort could provide constraints on the neutron-star equation of state, in addition to information on other areas of astrophysics.

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