

Accretion disc winds from X-ray transients.

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Abstract

Low-mass X-ray binaries (LMXB) are stellar systems where a neutron star or a black hole accretes mass from a low-mass ($\lesssim 1M_{\odot}$) donor star. A subclass, so-called X-ray transients, spend most of their lives in a dim, quiescent state. However, these systems go into sporadic, powerful outbursts produced by one of the most energetic process in the Universe: accretion. The accretion flow has been found to be strongly coupled to the presence of outflows (radio-jets, hot X-ray winds and the recently discovered cold, optical winds), which is a fundamental characteristic of their outbursts. Thus, the study of these winds can provide us with crucial information about accretion processes in the Universe. In this poster, we briefly review the state-of-the-art of the field and present the case of one LMXB transient that has recently shown signatures of accretion disc winds in its optical spectra, MAXI J1348–630. We discuss the properties of the outflow and its impact on the accretion process.

My poster is available at <https://zenodo.org/record/7034414#.Y2pA3-zP1LA>