

Overlooked supersoft X-ray nuclear transients in the X-ray catalogue

Supersoft hyperluminous X-ray sources offer a unique opportunity to study accretion onto supermassive black holes in extreme conditions. Typical supersoft hyperluminous sources are tidal disruption events, quasi-periodic eruptions, changing-look AGN, and other anomalous nuclear transients.

Although these objects are rare phenomena amongst the population of X-ray sources, we developed an efficient algorithm to identify promising candidates exploiting archival observations.

In my talk, I will present the results of a search for supersoft X-ray nuclear transients on the XMM-Newton and recently released Chandra archive of serendipitous X-ray sources. I will also show the potential of a machine-learning-based archival search.

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