
Links between Z sources and neutron-star ULXs

Jeroen Homan^{*1}

¹Massachusetts Institute of Technology (MIT) – 77 MASSACHUSETTS AVENUE, 37-582D
CAMBRIDGE, MA 02139, United States

Abstract

With the discovery of three ULXs pulsars it has become clear that at least some (and perhaps even a large fraction of) ULXs are powered by neutron-stars accreting at super-Eddington accretion rates.

Among the neutron-star low-mass X-ray binaries there exists a small class of sources that may link 'normal' X-ray binaries and ULXs, the so-called Z sources. These sources accrete close to or above the Eddington luminosity. Although the magnetic field in these systems is probably much weaker than in the neutron-star ULXs, they might still provide clues toward understanding the properties of (highly) super-Eddington accretion flows onto neutron stars. I'll briefly review the observed properties (X-ray continua, variability, winds, and jets) in these luminous neutron-star LMXBs as they start to approach and exceed the Eddington luminosity and will discuss how these compare to ULXs (in particular those on the low-luminosity end).

Keywords: X, ray spectra, variability, jets, winds

^{*}Speaker