Clocked Bursts From GS 1826-238: A Threaten for Thermonuclear Flash Models?

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BeppoSAX-Wide Field Camera observations of the transient source GS 1826-238 have been performed in the period August 1996 - October 1998. This long term monitoring revealed a persistent flux as well as 78 X-ray bursts from this source, suggesting the compact object associated with the binary system to be a Neutron Star. The analysis of the bursts arrival time lead to the discovery of an occurrence of ~ 5.75 hours with a spread of 38 minutes (FWHM) along the more than 2 years monitoring. This is the first evidence from XRBs of a very stable burst arrival time over a period longer than a year (Ubertini et al., ApJ Lett., 1999).

A further, still on-going, analysis of the whole available data has shown an unexpected evolution in the occurrence time, from 5.97 to 5.57 as well as in the spread that, for the 1998 observations, is as narrow as a few minutes.

We will present the bursts recurrence time, and spread, as a function of the persistent flux level and variability in the 2-28 keV energy range.