THE POPULATION OF GALACTIC X-RAY BURSTERS AS SEEN BY JEM-X ONBOARD INTEGRAL

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Type I X-ray bursts are thermonuclear explosions on the surface of weakly magnetized accreting neutron stars (NS) in Low-Mass X-ray Binary (LMXB) systems. During an X-ray burst, Hydrogen or Helium-rich material, accreted from the companion star and piled on the solid surface of the NS over hours or days, is burnt in a few seconds as the result of a thermonuclear runaway produced by the thermonuclear fusion of the accreted material in degenerated conditions. Most of the burst energy is released in the X-ray domain, and is detected in the system X-ray light curve as a fast rise followed by a longer, exponential, decay. The Joint European Monitor for X-rays (JEM-X) on-board the INTEGRAL spacecraft is a coded-mask instrument operating in the 3-35 keV energy range. JEM-X provides an angular resolution of 3’ and a fully-coded field of view of 4.8x4.8 degrees. Taking advantage of these capabilities, suitable for X-ray burst detection, we have carried out a systematic search of Type-I X-ray bursts serendipitously detected during the INTEGRAL observations. The main results of this work are presented here.