

Identification of compact objects at the Galactic center

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Unresolved point sources, namely millisecond pulsars (MSPs), are thought to contribute to an enigmatic signal detected in gamma rays: the Galactic Center Excess. The detection of these sources at longer wavelengths will shed light on this long-standing puzzle, also related to dark matter. In this talk, I will present our recent progress in our search for MSPs among yet unidentified X-ray sources: 1. Infrared data helped us to identify compact objects among a large sample of promising X-ray MSP candidates; 2. A dedicated X-ray spectral analysis revealed contamination of our initial sample by a population of cataclysmic variables and refined our selection of strong MSP candidates; 3. Finally, we are also conducting radio observations aiming at detecting millisecond pulsations, whose preliminary results will also be presented during this talk.