

Searching for Debris Disks around Isolated Neutron Stars

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I will review the current status of searches for debris disks around isolated neutron stars. Such disks could have formed from supernova fallback and their existence have been proposed to explain a few observed properties of neutron stars. Mid-infrared counterparts to two magnetars, 4U 0142+61 and 1E 2259+586, have been detected, and the broad-band spectrum of the first source, which is relatively well determined, can be described by emission from an X-ray heated dust disk. Deep infrared searches, including Spitzer observations, for similar emission around a few neutron stars of different types have been conducted, while with no detections thus far. Using recently released WISE all-sky survey data, we are working on searches for mid-infrared counterparts to all known pulsars. The results will also be presented.