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The tireless magnetar

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In this talk, I will focus on the peculiar case of the magnetar 1E 1547.0-5408. This source underwent three outbursts, with the latest having onset in 2009. By analysing new and archival observations, we measured a steady flux over the last 9 years (about a factor 30 larger than its quiescent level and an order of magnitude fainter than the peak of the 2009 outburst). Moreover, we observed hard X-ray emission till ~ 70 keV, after 10 years since the outburst onset. Our analysis suggests that the flux of 1E 1547 is not yet decaying to the pre-outburst level: this is a property that has not been seen in other magnetars. This result might suggest that magnetars can hop among different persistent states and that their persistent thermal emission can be almost entirely powered by the dissipation of currents in the corona.

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