Detection of 33.8 ms X-ray pulsations in SAX J0635+0533

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The X-ray source SAX J0635+0533 was discovered thanks to a BeppoSAX observation within the error box of the unidentified Galactic gamma-ray source 2EG J0635+0521. We revisited the BeppoSAX observation and discovered a 33.8 ms pulsation from the source. Moreover, we derived an improved position, consistent with the location of the Be star proposed as a binary companion. We interpret the periodicidy as the spin period of a neutron star in a binary system with a Be companion.