

# **Tkachenko waves and precession in neutron stars**

S.B. Popov

Sternberg Astronomical Institute, SAI MSU (Moscow, Russia)

I note that the proposed precession period of the isolated neutron star RX J0720.4–3125 is consistent with the period of Tkachenko waves for the spin period of 8.4 s. Based on a possible observation of a glitch in RX J0720.4–3125 (van Kerkwijk et al. 2007), I propose a simple model, in which long period precession is powered by Tkachenko waves generated by a glitch. The period of free precession, determined by a neutron star oblateness, should be equal to the standing Tkachenko wave period for an effective energy transfer from the standing wave to the precession motion. A similar scenario can be applicable also in the case of the PSR B1828–11.