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What is the true nature of PSR J0901-4046?

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The radio pulsar PSR J0901-4046 exhibits very slow rotation with a spin period 76 s, which is unusually low for a neutron star. Typically the spin period of radio pulsars ranges 1.4 ms to 23.5 s, when they are divided into various sub-classes, e.g. transient, millisecond pulsar, magnetar. The question arises, is PSR J0901-4046 really a neutron star? In fact, the spin period 76 s more corroborates with a moderately spinning white dwarf. We plan to examine the true nature of PSR J0901-4046 assuming it having a complicated magnetic fields and based on its position with respect to the death line in the $P - \dot{P}$ plane. We argue that the source seems to be more plausibly a highly magnetized white dwarf, lying close to the white dwarf, AR Scorpii, in the $P - \dot{P}$ plane.

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