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Abstract:

We propose the FAST observation to time a confirmed nulling pulsar, J0240+6113, in the direction of the bright and well-known microquasar, LS I +61 303. Such a nulling pulsar was discovered by FAST in January 7th, 2020, and confirmed on November 3rd, 2021. Its spinning period and Dispersion Measure (DM) are 269 ms and 240 pc cm^-3, respectively. From FAST observations, nulling phenomena, pulse shape with a scattering tail and accelerated periodic signals support that this pulsar can be in LS I +61 303. We propose the timing observation to confirm or deny that such a pulsar is a member of LS I +61 303.