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Abstract:

We propose the long-term timing observations for six millisecond pulsars (MSPs) in the Globular Clusters (GCs) to obtain their basic observation parameters or update their timing solutions. These six MSPs have no periodic derivative information and long-term timing solutions, and M3C even has no orbital period and companion star parameters. We propose the FAST observations on 4 GCs, including M3, M5, M71, and NGC 6949, which have been carried out in a FAST Globular Cluster Pulsar Survey without long-term timing. Once the orbits or the timing solutions are known, these discoveries become meaningful for GC environment, dynamic, and evolution study probes, which may even contribute to PTA research.