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Abstract:

We propose FAST observation to the Globular Cluster (GC) M71, which is the nearest GC to the sun with pulsars in FAST sky. From our previous study with FAST, we discovered M71B, C, and D, and obtain the orbit of M71E. GC pulsars are special types of pulsars, and it seems that pulsars in M71 are special types of GC pulsars. M71A (previously discovered) and M71E are black widows, M71B, C, and D are in long orbit with relatively massive companions. We wish to obtain their phase-connected timing solution and monitoring them. The positions, period derivatives of these pulsars are key to study nature of the binaries and the evolution of the cluster.