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Probing the properties of globular clusters using pulsars with MeerKAT - 15'

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Globular clusters contain a large number of millisecond pulsars. Besides being extremely interesting by themselves, these pulsars are an invaluable tool to probe the cluster environment and dynamics. They can be used to search for the presence of an intermediate mass black hole in the center, ionized gas and its magnetic field. The SKA precursor MeerKAT is in a unique position as it is capable of observing all of the Milky Way globular clusters. Thanks to its large collecting area and wide bandwidth, MeerKAT will be able to time the pulsars in globular clusters with higher precision than now possible and to constrain better the structural parameters of the clusters. This will also lead to tighter limits on the mass of central black holes.

Primary authors: ABBATE, Federico (Istituto Nazionale di Astrofisica (INAF)); POSSENTI, Andrea

Presenter: ABBATE, Federico (Istituto Nazionale di Astrofisica (INAF))

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