

Proposal Abstract:

The old, massive, and dense globular clusters are well-known as rich sources of pulsars. However, radio pulsar populations in open clusters - even those that are old, massive and dense - remain poorly understood. Different stellar systems may give rise to distinct populations of neutron stars and their supernova progenitors, this is an area that has received little attention in the literature. By investigating pulsar populations in open clusters through deeper searches and studies, we hope to shed light on the nature and evolution of neutron stars, and gain a better understanding of the formation and evolution of stellar clusters. To this end, we propose to conduct a search for pulsars in both old, massive open clusters as a link between globular clusters and open clusters, and in young, massive ones that have just experienced the explosion of massive stars and formed new neutron stars.