

## **ABSTRACT**

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### **Multiple Stellar Populations in Globular Clusters**

A number of spectroscopic and photometric observations have shown that many globular clusters host multiple stellar populations and challenged the common paradigm that globular clusters are "simple stellar populations" composed of stars of uniform age and chemical composition. After a brief review of these observational studies, I will show the results of a study of the formation and of the early and long-term dynamical evolution of multiple stellar populations in globular clusters. A scenario for the formation of an intermediate-mass black hole at the cluster center during the second generation star-formation phase will be presented.