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Optical and X-ray properties of Neutron Stars and Black Holes

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Neutron stars and black holes in our Galaxy and in many other galaxies in the universe have been identified and studied with astronomical observations across the electromagnetic spectrum. This talk will discuss how neutron stars and black holes are discovered in X-ray and optical data and how their properties are constrained by the observations. I will particularly focus on the properties of black holes and neutron stars in dense stellar regions, such as globular clusters. I will also talk about the formation and evolution of black holes and neutron stars over cosmic time. This will include both the development of our current understanding based on a wide range of observational evidence and prospects in the future for improving.