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Abstract for an Invited Paper
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Maria Goeppert-Mayer Award Talk: Formation and Evolution of Compact Objects in Binary Systems
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Ever since their discovery, first as X-ray sources and later as radio pulsars, binary stellar systems harboring neutron stars or black holes have been pivotal in our efforts to understand the formation and evolution of these most compact objects and the implications for gravitational wave searches. I will review some recent surprising results linking the formation of neutron stars and black holes. I will also discuss how studies of double compact objects can help uncover the origin of short gamma-ray bursts and assess the prospects for gravitational wave detections in the near future.