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Gravitational waves from neutron-star mergers. JOCELYN READ, TORREY CULLEN, ERIC FLYNN, VERONICA LOCKETT-RUIZ, CONNER PARK, Cal State Univ- Fullerton, SUSAN VONG, UC Berkeley — The inspiral and merger of binary neutron stars is expected to provide many signals for Advanced LIGO at design sensitivity. The waveform models currently used to search for and parameterize these signals ignore effects near the merger: as the stars coalesce, the gravitational waves depend additionally on the properties of matter in the core of the stars. In this talk, I will discuss potential systematic error from neglecting these features and present phenomenological waveform models currently being developed to capture the dynamics of merging neutron stars.

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