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Type: **Invited talk in the parallel session**

## Mergers, magnetars and multi-messengers

*Tuesday, July 6, 2021 10:10 AM (20 minutes)*

Wide-field optical sky surveys are discovering a remarkable diversity in how stars merge, collapse and explode. The powering mechanism for many of these requires a source beyond radioactivity, plausibly a magnetic, rapidly spinning neutron star. The discovery of the electromagnetic counterpart to a pair of merging neutron stars and other rapid transients from merging binary systems illustrate the new types of explosion mechanisms in the transient sky. I will review some recent discoveries from explosive stellar mergers and discuss the future potential in the era of the Rubin Observatory.

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**Session Classification:** Multichannel Studies of Nonstationary Relativistic Stars

**Track Classification:** Binaries: Multichannel studies of nonstationary relativistic stars