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Unveiling the Progenitors of Short Duration Gamma-Ray Bursts

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While the connection between long duration gamma-ray bursts (GRBs) and massive star core-collapse has been firmly established over the last two decades, the progenitor system of short duration GRBs has proven more difficult to pin down observationally. With the discovery of the first long-wavelength afterglows of short GRBs following the launch of the Swift satellite, we have slowly accumulated evidence supporting a binary neutron star merger origin for these systems. In this talk I will summarize the indirect evidence supporting a link between neutron star mergers and short duration GRBs, as well as ongoing attempts to uncover a direct "smoking gun" signature, either in the form of neutron-rich (r-process) material tidally ejected during the merger ("kilonova" emission) and/or the coincident detection of gravitational waves from the Advanced Ligo/Virgo network.