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# Massive stars in binary systems and star clusters

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Massive stars are rarely born alone and are generally found in binary or triple systems as part of star clusters and associations. The stars emit copious thermal radiation from radio to X-rays, and wind-wind collisions enable particle acceleration with associated broadband non-thermal emission. In this talk I will review some of the astrophysics of binary star systems and young massive clusters, from the early embedded phase to the superbubble phase when the most massive cluster members are exploding as supernovae. I will focus on the Wolf-Rayet evolutionary phase, when the densest and fastest stellar winds are driven, and on collective winds from many stars contributing to superbubble formation. Recent insights into particle acceleration and high-energy processes in binaries and clusters will be discussed.

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