Invited: Galactic scale flows and the formation of high-mass stars

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High-mass star formation is the main driver for galaxy evolution and a significant energy source for the interstellar medium. In this review we will explore how the role of large scale galactic flows in generating high-mass star formation and how these high-mass stars can affect their natal and larger-scale environments and hence further star formation through ionisation and supernovae. High-mass star formation is intrinsically linked to the formation of stellar clusters where most stars likely form. Why star formation prefers a cluster mode and how clusters allow the formation of high-mass stars is linked to the spiral structure in galaxies and their inherent convergent flows. We will also discuss the formation of isolated high-mass stars and the formation of close OB binary systems.

Galactic Scale