



Physics & Astronomy Colloquium *- Fall 2018*



Tuesday, Sep 18th at 3:30 pm in SC 234

Dr. Anna McLeod

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Feedback from massive stars, integral field spectroscopy and serendipitous discoveries

Massive stars strongly influence their immediate surroundings during their lifetimes (via e.g. protostellar jets, strong stellar winds, ionizing radiation, supernovae). On larger scales, feedback from massive stars regulates the formation and evolution of entire stellar clusters and dominates the mass and energy cycle in star-forming galaxies like the Milky Way. Qualitatively, the effect of massive stars on their environment is well understood, but a solid quantitative, observational analysis is still missing. The results of recent feedback observations of a variety of structures and environments within massive star-forming regions will be shown, carried out with the integral field spectrographs MUSE and KMOS at the Very Large Telescope. I will discuss the advantages (and caveats) of integral field spectroscopy in tracing and quantifying feedback from massive stars, describe the bigger picture that connects feedback on small (cloud) scales to that on large (galactic) scales, and showcase two serendipitous discoveries.

Refreshments at 3:00 pm in SC 103