

Tracing massive stellar feedback in the Milky Way Galaxy using infrared bubbles

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Bubbles in the interstellar medium, readily observed in infrared images of the Galactic Plane, are known to be excellent signposts of sites of massive star formation. Recent large-scale Galactic Plane surveys with the Spitzer Space Telescope have revealed a wealth of such objects throughout the Galaxy. With the help of 50,000 volunteers in the Milky Way Project, run by the Zooniverse citizen science group in Oxford and Chicago, we have increased the number of known infrared bubbles by an order of magnitude over earlier counts. Combining their locations and properties with complementary survey data at infrared and longer wavelengths, we can study massive stellar feedback on Galactic scales. I will show results from statistical correlation studies between bubbles and massive young stellar objects from the RMS survey, and between bubbles and cold dense clumps from the ATLASGAL survey, statistically characterizing physical effects of massive stellar feedback on the surrounding ISM clouds.