$\# {\rm RAS}$ 2022 JWST First Results

We observed the isolated metal-poor galaxy NGC 6822 with JWST NIRCam and MIRI early in JWST's mission (#1234). The data resolves individual stars in this nearby galaxy, producing an inventory of star formation and dust life cycles at high resolution, similar to Spitzer's studies of the Magellanic Clouds (SAGE). NGC 6822 is nearby (~500kpc) and metal-poor ([Fe/H]=-1.2), making it a compelling target for studying evolution as it is thought to have conditions similar to galaxies at the peak star formation epoch in the Universe. With the sensitive infrared imagers on board JWST, we can detect the highly enshrouded young stellar objects down to around a solar mass and evolved stellar populations to several magnitudes below the red clump. With this census of infrared-bright objects, we can probe the star formation history of NGC 6822 and study the feedback effects of interstellar medium dust injection from evolved stars. Gaining a better understanding of galaxy chemical evolution at low metallicity. These data provide a bridge to interpreting high redshift unresolved observations of galaxies with JWST. To handle the photometric processing of these crowded and dusty infrared data, bespoke photometric tools were developed. Here we will discuss these tools and their application to our JWST programme.