

[P04-9] **Lateral Structure of the NGC 1333 IRAS 4A Outflow**

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The southwestern outflow of the protostar NGC 1333 IRAS 4A was observed in the SiO 1-0 line with an angular resolution of 1.5 arcseconds, and the outflow lobe was resolved not only along the flow axis but also across the flow. The slope of lateral intensity profiles is steeper on the clockwise (southeastern) side than on the other side. Kinematically, the counterclockwise edge is bluer than the clockwise edge. These differences between the opposite edges suggest that either the outflow or its environment has some degree of asymmetry. Possible explanations include drifting outflow axis and rotation around the axis.

[P04-10] **21cm Radio Continuum Imaging of Giant HII Complexes**

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We present 21cm Radio Continuum Aperture Synthesis Survey of the Giant HII Shells and HII Regions in the Large Magellanic Cloud (LMC) using the Australia Telescope Compact Array (ATCA) and the 64-m Parkes Single dish telescope. The mosaicked images have a spatial resolution of 50'', 10 pc at the distance of the LMC and the sensitivity of about 0.1 mJy/Beam. We compare these images with the Neutral Hydrogen (HI) and Ionized Hydrogen (HII) Survey and investigate the physical properties of the radio continuum emitting HII complexes. We have also catalogued approximately 3800 background radio continuum sources by using DAOPHOT package in IRAF and compared these sources on the HII and DSS images.