Imaging Pipeline Software

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Abstract

An image synthesis pipeline is used in radio astronomy and medical imaging to create images from data. This project will cover This technique takes visibilities and uses three techniques, Gridding, Fourier Transform, and Deconvolution, to produce an image of a region of the sky that could not be captured using just the smaller antennas alone. The software will mimic pipelines that will be used for the Square Kilometre Array (SKA).

Keywords: [Click here to add keywords.]

Acknowledgements

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Introduction

## Interferometry

## Fourier Transform

## Gridding

## Deconvolution

Methods

Results

Discussion of Results

Conclusion

**References**

Ryle, M., & Hewish, A. (1960). The synthesis of large radio telescopes. *Monthly Notices of the Royal Astronomical Society, Vol. 120*, 220-230.

Appendix

1[Add footnotes, if any, on their own page following references. For APA formatting requirements, it’s easy to just type your own footnote references and notes. To format a footnote reference, select the number and then, on the Home tab, in the Styles gallery, click Footnote Reference. The body of a footnote, such as this example, uses the Normal text style. (Note: If you delete this sample footnote, don’t forget to delete its in-text reference as well. That’s at the end of the sample Heading 2 paragraph on the first page of body content in this template.)]