

**Contributors:** *K. Blundell, M. Kadler, E. Koerding, C. Lang (chair), J. Miller-Jones, A. Richards, E. Ros*

Monday and Tuesday's hands-on sessions will be focused on full calibration of an archival VLA data set of the head-tail radio galaxy known as 3c129. We will be using the NRAO package AIPS.

- AIPS can be installed on laptops easily: for more information see: [http://www.aips.nrao.edu/#CURRENT\\_RELEASE](http://www.aips.nrao.edu/#CURRENT_RELEASE)

- Students should install the 31DEC09 release as it has the most up to date patches/fixes and we would recommend that the students install AIPS via the binary file, to avoid problems with invalid C compilers.

- The data can also be downloaded and should be put in the aips "FITS" area - the folder in your AIPS directory named "FITS". Data can be found at: <http://casa.nrao.edu/Data/VLA/3C129/>

In this tutorial, we plan to cover the data calibration. For this students will want to use the online calibration manual. See:

<http://www.vla.nrao.edu/astro/calib/manual/csource.html>

- data editing
- data inspection and plotting
- imaging and deconvolution

**\*\*update\*\*** E. Ros's and M. Kadler's recipe for calibrating a VLBA dataset: [ros\\_aips\\_commands\\_20090702.pdf](#)

The AIPS cookbook is particularly helpful for these topics. The entire cookbook can be found here:

<http://www.aips.nrao.edu/cook.html>

There are links to the html and pdf version as well as the entire cookbook. Good chapters to print out and bring include (1) Chapter 4 on calibration and (2) Appendix A: Easy Continuum uv-data Calibration and Editing.

If there is time or for more advanced students, we may cover the following additional topics:

- self-calibration
- polarization calibration
- imaging of polarized intensity
- image analysis

- spectral line data calibration