ORIGINAL ARTICLE

FLAGCAL: a flagging and calibration package for radio interferometric data

Jayanti Prasad · Jayaram Chengalur

Received: 30 January 2011 / Accepted: 28 November 2011 / Published online: 17 December 2011 © Springer Science+Business Media B.V. 2011

Abstract We describe a flagging and calibration pipeline intended for making quick look images from GMRT data. The package identifies and flags corrupted visibilities, computes calibration solutions and interpolates these onto the target source. These flagged calibrated visibilities can be directly imaged using any standard imaging package. The pipeline is written in "C" with the most compute intensive algorithms being parallelized using OpenMP.

Keywords Flagging · Calibration · Synthesis imaging

1 Introduction

Radio interferometric data taken at the GMRT has traditionally been analyzed interactively using the AIPS data package (but see also [9]). This becomes cumbersome when large data sets need to be analyzed, or when the data analysis has to be done in quasi real time. We describe here a "C" based program which calibrates GMRT data as well as flags data affected by interference or by instrumental problems. This package was developed largely in the context

J. Prasad (🖂)

IUCAA, Postbag 4, Ganeshkhind, Pune University Campus, Pune 411007, India e-mail: jayanti@iucaa.ernet.in

J. Chengalur NCRA-TIFR, Postbag 3, Ganeshkhind, Pune University Campus, Pune 411007, India e-mail: chengalur@ncra.tifr.res.in