

WALLABY working group on data processing and imaging

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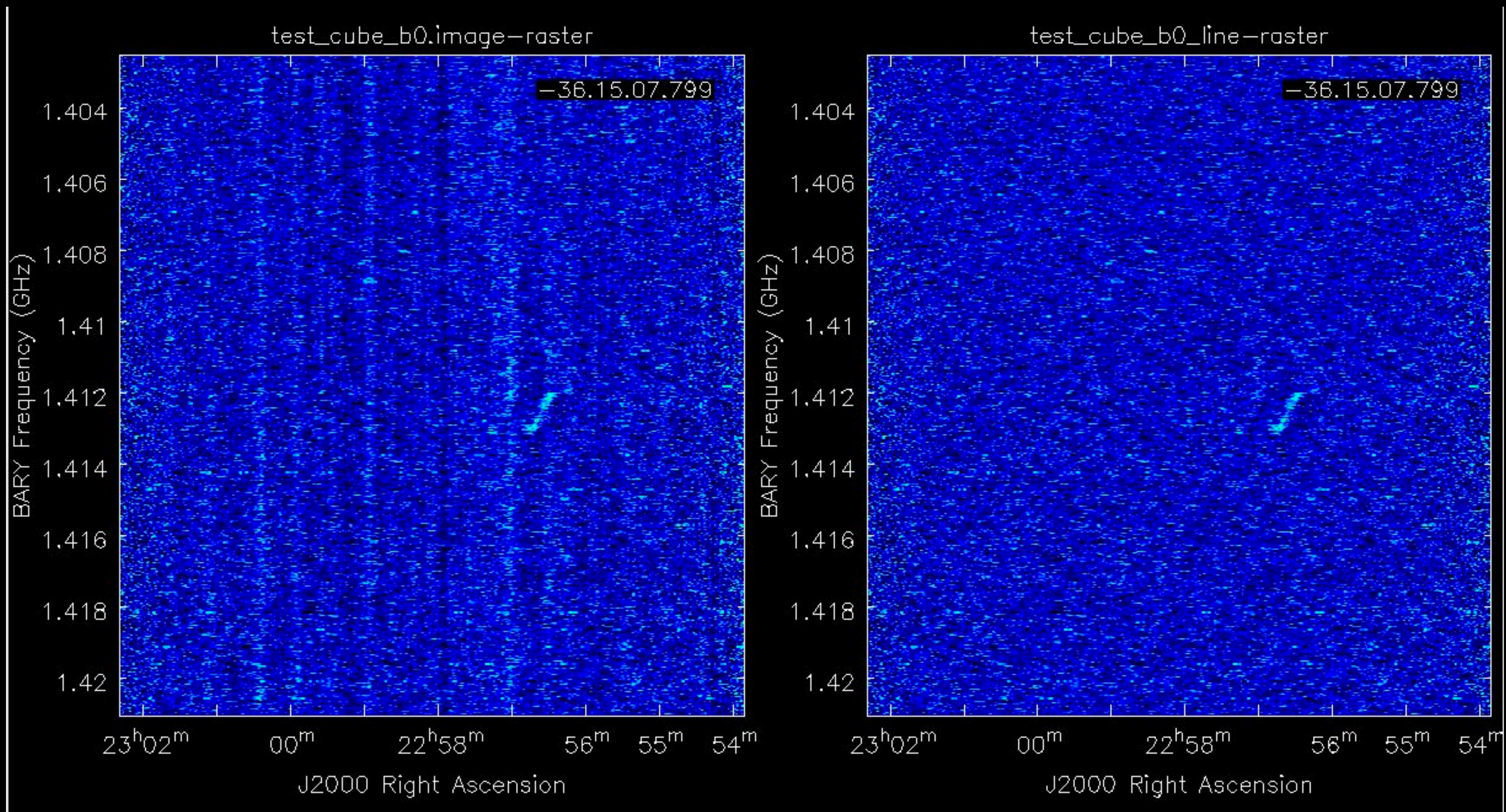


Standard data reduction

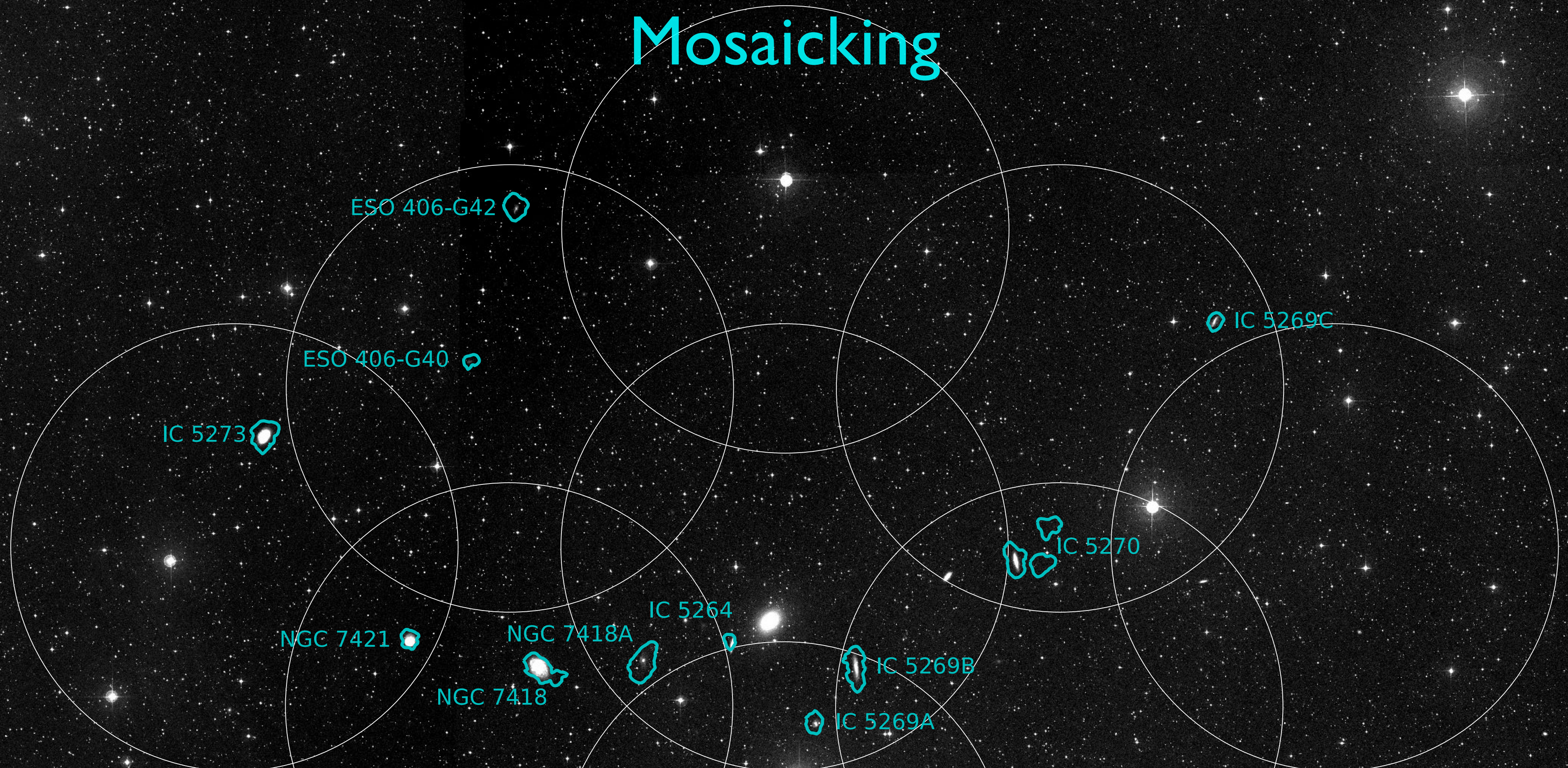
flagging
bandpass calibration
continuum imaging and selfcal

continuum subtraction
line imaging
mosaicking

Continuum subtraction



Mosaicking

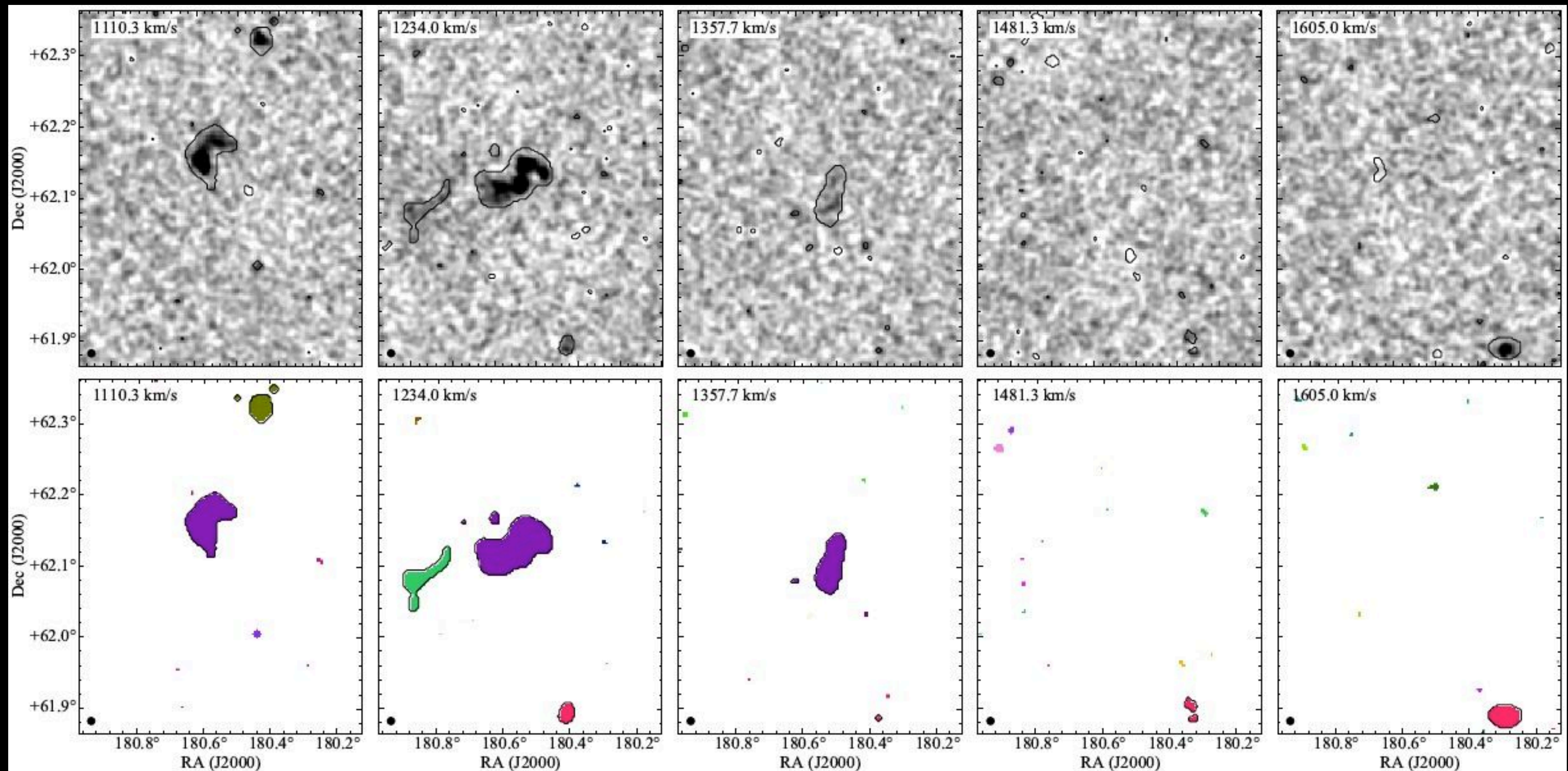


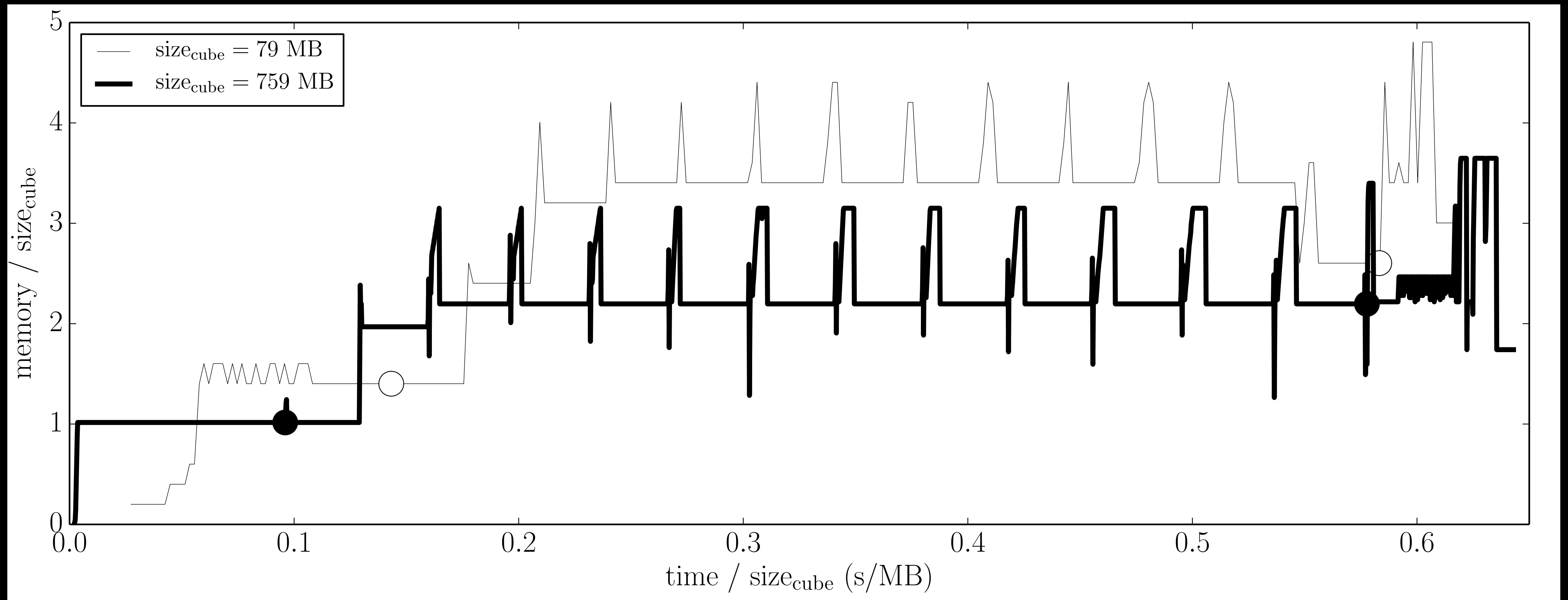
$$I_{\text{mosaic}}(l, m, \nu) = \frac{\mathbf{B}^T(l, m, \nu) \mathbf{C}^{-1}(\nu) \mathbf{I}(l, m, \nu)}{\mathbf{B}^T(l, m, \nu) \mathbf{C}^{-1}(\nu) \mathbf{B}(l, m, \nu)},$$



N. Giese, R. Jurek, B. Koribalski, M. Meyer, A. Popping, P. Serra,
L. Staveley-Smith, T. van der Hulst, T. Westmeier, B. Winkel
<https://github.com/SoFiA-Admin/SoFiA> ; Serra et al. (2015)

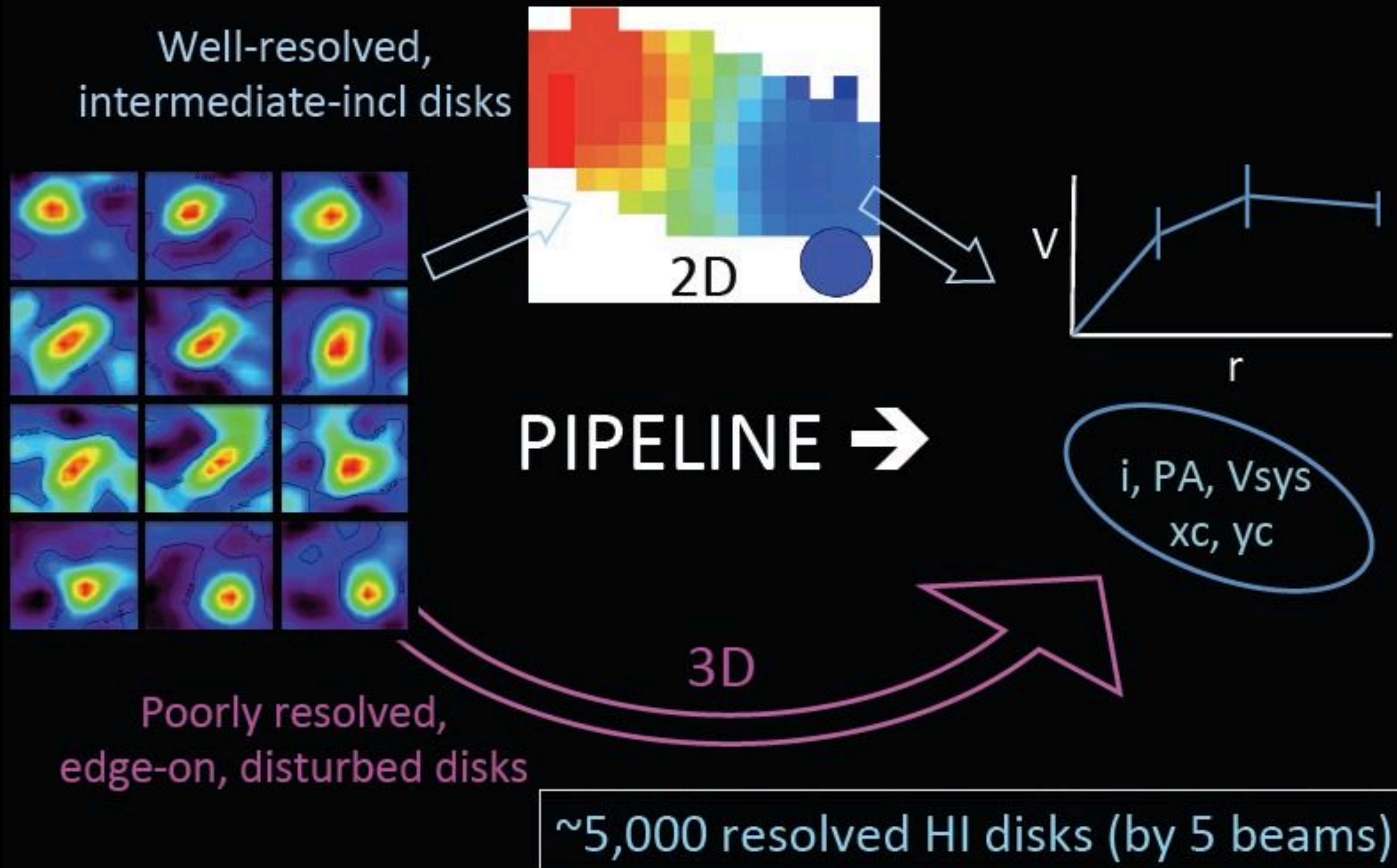
development @ ATNF, ICRAR, Kapteyn, UCT





Source finding limited by available memory
For WALLABY ~1 TB cubes: need to parallelise (ongoing)
SoFiA now running on Magnus @ Pawsey

WALLABY kinematics pipeline (K. Spekkens, S. Oh, P. Kamphuis et al.)



data reduction
Paolo Serra

source finding
Tobias Westmeier

kinematics
Kristine Spekkens