A Generic and Efficient E-field Parallel Imaging Correlator for Next-Generation Radio Telescopes

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ABSTRACT

Abstract here (250 words)

Key words: instrumentation: interferometers – techniques: image processing – techniques: interferometric

1 INTRODUCTION

Motivate MOFF from a technical and scientific standpoint. Refer to Deller et al. (2007); Morales & Matejek (2009); Morales (2011).

2 MATHEMATICAL FRAMEWORK

Refresh the math equivalence between MOFF and FX.

3 SOFTWARE IMPLEMENTATION

Discuss implementation and make code available for public.

Calibration

4 VERIFICATION

Show examples using simulations

Discuss PSF differences due to slight differences arising out of gridding

Apply it on LWA data

5 ANALYSIS AND FEASIBILITY

- 5.1 Scaling Relations: MOFF vs. FX
- 5.2 Scaling Up
- 5.3 Case Study
- 6 CONCLUSIONS

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REFERENCES

Deller A. T., Tingay S. J., Bailes M., West C., 2007, PASP, 119, 318 Morales M. F., 2011, PASP, 123, 1265 Morales M. F., Matejek M., 2009, MNRAS, 400, 1814

APPENDIX A: SOME EXTRA MATERIAL

If you want to present additional material which would interrupt the flow of the main paper, it can be placed in an Appendix which appears after the list of references.

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