

MOVING BEYOND VISIBILITIES

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The radio community envisions its future consisting of arrays with thousands of antennas. While there has been a lot of progress by the community on developing ultra-large-N correlators, it has been hoped that Moore's law would address the processing and data storage challenge associated with N^2 visibilities. Given our experience with the first ~ 100 antenna arrays, it may be time to start talking about how to do precision radio analysis without visibilities. Drawing upon a range of recent advances in interferometry (including Fast Holographic Deconvolution, Software Holography/ A^T analysis, the MOFF correlator, and feedback calibration), I will outline how we might perform cosmology-precision data analysis without ever forming visibilities.