CALIM 2011



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How small can you get?

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e-MERLIN and ALMA are currently operating with 5-15 antennas, up to about 10,000 spectral channels and integration times around one second.

The high resolution is useful for debugging during commissioning but produces data sets up to a TB which take hours to process on a desktop at the high end of what is currently commonly available.

These data volumes are, of course, but a drop in the ocean compared with SKA data or even the full operation of ALMA. Conventional expressions for time- and bandwidth-smearing (including phase-rate and spectral index effects) can be used to estimate how much averaging is possible in imaging.

I will present progress towards guidelines for how much data averaging is worthwhile without degradation, for various kinds of data, during calibration, imaging and continuum subtraction.

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