Epoch of Reionisation (EoR)

Detection of the Epoch of Reionisation (EoR) was a key scientific driver for the design and construction of the MWA. This project is complementary to experiments being undertaken by other groups internationally, each having a slightly different technical focus, and different observing architectures. Calibration and foreground removal have been the key considerations for the MWA EoR Collaboration, and our best results to date are to be published in Beardsley+ (2016). However we have over 1.5Pb of data, most of which we are still in the process of processing.

The task to efficiently and effectively process the data is complex, and two processing pipelines have been developed by the Collaboration. In addition, 3 Power Spectrum algorithms have been developed to analyse the output from the pipelines, and we now have some confidence in the stability and fidelity of the output results.

Organisation of the Collaboration has been outlined in a charter, which the MWA Collaboration has endorsed. Since many people are required to contribute to the development of the software for any analysis, and to the processing, papers using EoR data include all members of the EoR Collaboration.

New members of the EoR Collaboration are encouraged and most welcome, there is lots to do! Please read the Current EoR charter and contact Cathryn Trott if you are interested (cathryn.trott@curtin.edu.au).