

COBRaS: The e-MERLIN 21cm Legacy Survey of Cygnus OB2

D. Fenech, J. Morford, R. Prinja, J. Clark, R. Blomme, J. Yates, J. Drake, S. Eyres, A. Richards, I. Stevens, N. Wright, S. Dougherty, J. Pittard, H. Smith, J. Vink

The Cygnus OB2 association is located in the Galactic Cygnus X region at a distance of 1.4 kpc, making it one of the closest young massive stellar clusters. Cyg OB2 is not only very rich in stellar density but also in its diversity. It is known to contain a rich population of massive stars including almost 2600 OB stars, a large number of binaries and a considerable number of pre-main sequence stars.

We report on the first results from The Cyg OB2 Radio Survey (COBRaS), an e-MERLIN legacy project to provide a deep-field radio map of the Cygnus OB2 association. The project aims to enhance our understanding of stellar mass-loss and binary interactions and has been awarded a total allocation of 252 hrs at C-band

(5 GHz) and 42 hrs at L-band (1.6 GHz) to image the core of the cluster. I will present our key findings so far from the completed L-band observations and some of the unexpected surprises.