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Ingest pipeline for ASKAP

Tuesday 5 November 2019 14:45 (15 minutes)

The Australian Square Kilometre Array Pathfinder (ASKAP) is a new generation 36-antenna 36-beam interferometer capable of producing about 2.5 Gb/s of raw data. The data are streamed from the observatory directly to the dedicated small cluster at the Pawsey HPC centre. The ingest pipeline is a distributed real time software which runs on this cluster and prepares the data for further (offline) processing by imaging and calibration pipelines. In addition to its main functionality, it turned out to be a valuable tool for various commissioning experiments and allowed us to run an interim system and achieve the first scientific results much earlier. I will review the architecture of the ingest pipeline, its role in the overall ASKAP's design as well as the lessons learned by developing a hard real-time application in the HPC environment.

Consider for promotion

No

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