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Rapid Development of Accelerated Imaging Algorithms for ASKAP

Thursday 7 November 2019 14:15 (15 minutes)

The software pipeline for ASKAP has been developed to run on the Galaxy supercomputer as a succession of MPI enabled coarsely parallelised applications. We have been using OpenACC to develop more finely grained parallel applications within the current code base that can utilise GPU accelerators if they are present. Thereby eliminating the overhead of maintaining two versions of the software and without rewriting large sections of the code base. This talk will outline how we determined which elements to accelerate, how we applied openACC to simply develop parallel applications and the benefits, and disadvantages, of this type of development cycle.

Consider for promotion

No

Primary author: Dr ORD, Stephen (CSIRO Astronomy and Space Science)

Presenter: Dr ORD, Stephen (CSIRO Astronomy and Space Science)

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