

Python in the CASA project and its pipelines

Monday, 18 March 2019 17:15 (45 minutes)

CASA, the Common Astronomy Software Applications, is a package for radio astronomical telescopes that is developed by an international consortium of institutions from America, Asia, Australia and Europe. It is used to manipulate and process both interferometric and single dish data, and is the primary data processing software for the Karl G. Jansky Very Large Array (VLA) as well as the Atacama Large Millimeter/submillimeter Array (ALMA). CASA consists of a suite of libraries and tools written in C++ which provide functionality exposed to Python. I will give an overview of the project, its origins, present and future plans. Topics will include telescopes and data formats supported, and how the software is built and distributed in its current 5.x series and the plans for the upcoming 6.x series. We will also see how the pipelines for automated data processing used by the VLA and ALMA have been developed entirely in Python since their inception.

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Session Classification: Monday