



Automatic production of test data to aid integration of Gaia First Look Monitor software.

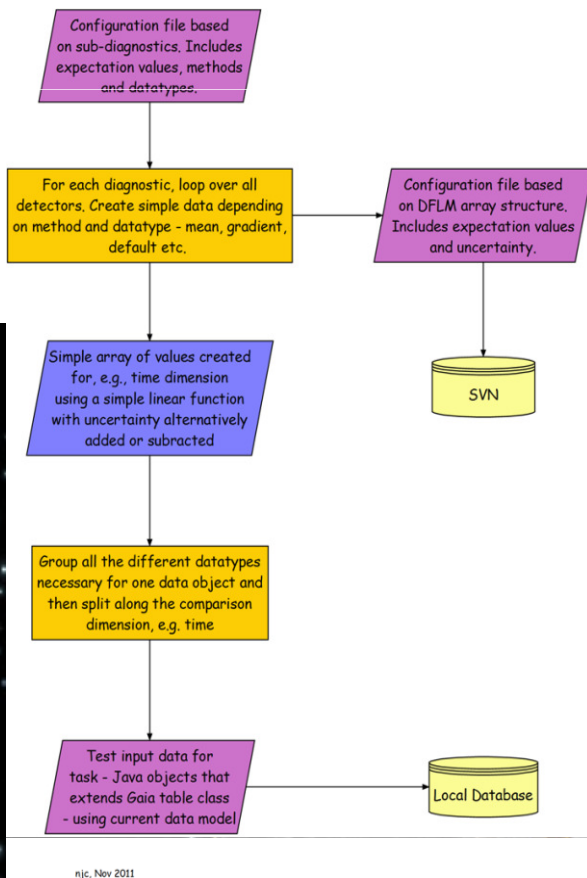


gaia

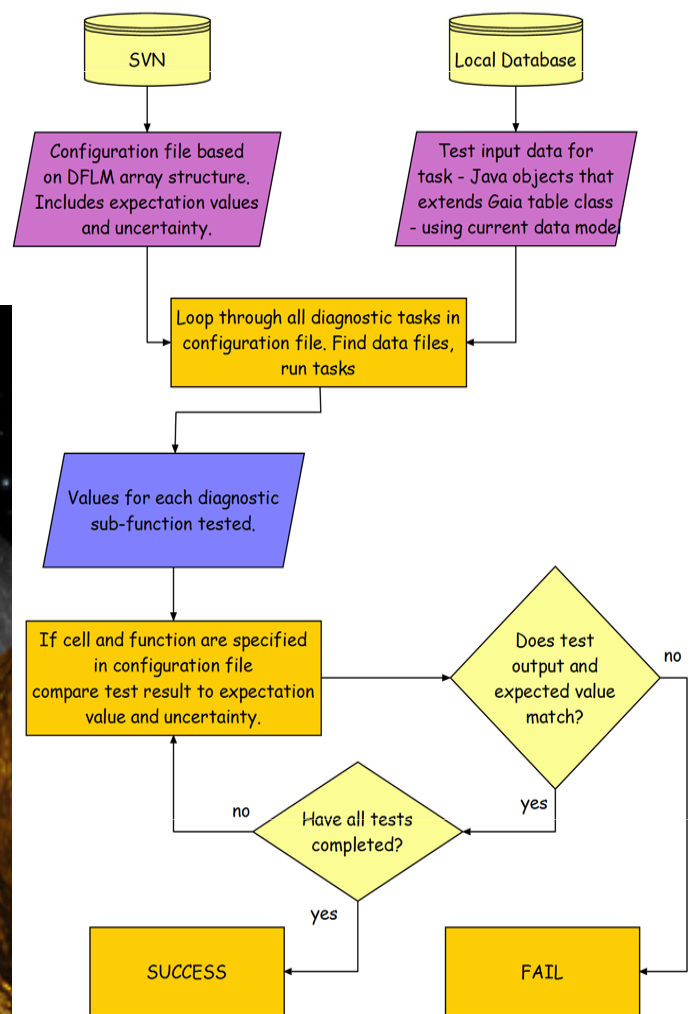
Nicholas Cross & Albert Heyrovsky,
Institute for Astronomy, University of Edinburgh
njc@roe.ac.uk



Producing Test Diagnostic Data for Gaia-FL



Testing Diagnostic Data for Gaia-FL



Gaia is an ESA cornerstone mission, expecting to launch in 2013. Gaia will measure the parallaxes to 1 billion stars with up to $10\mu\text{as}$ accuracy. Data is processed in 3 pipelines, initial data treatment – first look (IDT-FL), astrometric global iterative solution (AGIS) and intermediate data update (IDU).

IDT-FL runs each day to reduce the incoming data streams and match them to the existing catalogue. FL does sanity checks on the IDT output and sends alerts if there are any problems.

At the IfA in Edinburgh we have been writing diagnostic tasks to test the bias, background and radiation damage mitigation software. The FL infrastructure is complex, so simple JUnit tests on a function are insufficient. Integration tests of IDT-FL using simulations may fail for reasons along the whole pipeline or indeed in the simulations, so an intermediate set of “FL diagnostics” have been developed to test each diagnostic task.

