Diploma Thesis: Development of Visualisation and Analysis Modules for JWST NIRSpec Image Data

Area of Expertise: Software development

Description: The successor to the Hubble Space Telescope (HST) is the 6.5m James Webb Space Telescope (JWST), which among others, includes the NIRSpec instrument. This is a spectrometer for the near infrared wavelength range and is currently in development at Astrium. During the upcoming cryogenic test phase (on the ground), the workstation IQLAC (Instrument Quick Look Analysis and Calibration) will be used to visualize, process and analyse test data.

The task of the diploma thesis is the development of graphical user interface software modules for 1D graph and 2D image visualization with a strong emphasis on user interaction, like zooming, annotation, appearance and data analysis (i.e. statistics).

The development is to be performed in the programming environment IDL (similar to Python), using the IDL specific widget environment.

Time frame: 6 month, with begin preferably beginning of 2007

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