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Developing Data Reduction Pipelines for IFU Data

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Abstract

The UCM group of Extragalactic Astrophysics and Astronomical Instrumentation (GUAIX) is involved in the development of the data reduction pipelines of two future Integral Field Unit (IFU) instruments: FRIDA for the Gran Telescopio Canarias (GTC) and TARSIS for the 3.5m telescope of the Calar Alto Observatory. For this reason we are developing basic functionality for the reduction of integral field spectroscopic observations in Python that can be useful in the development of the corresponding data reduction pipelines: `fridadrp` and `tarsisdrp`. Both packages will use the same user interface, `numina`, whose versatility has already been demonstrated in the development of the data processing chains for GTC's EMIR and MEGARA instruments.
As a first step, we have created `fridadrp-ifu_simulator`,which allows the generation of simulated FRIDA IFU images to begin the development and testing of reduction recipes. This software is still under development.
The last version of the software and documentation is available in GitHub: https://guaix-ucm.github.io/fridadrp-tutorials/.

My poster in zenodo.org can be found here