

Radio-astronomy projects for university students.

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Abstract

The recent availability of cheap Software Defined Radio (SDR) receivers makes possible the exploration of new aspects of radio-astronomy in a practical and inexpensive way. The SDR is one of the base technologies of upcoming data intensive radio-telescopes, like the Square Kilometre Array (SKA). We are currently building a radio station based on general use SDR receivers at the Royal Observatory of Edinburgh. Our main aim is to develop innovative projects for the training of students in the new radio data intensive techniques. The projects range from the measurement of Milky Way atomic gas to the detection of pulsars. In this poster we present an overview of the observatory and the projects under development and show how it can be used to train students in the new aspects of astronomical research.

Additional updated information can be found in <https://www.jsabater.info/sea2018/>. This project was supported by alumni and friends of the University of Edinburgh through an Innovation Initiative Grant. (See poster).