RADIO OCCULTATION WITH ROSA ON-BOARD OCEANSAT-2 IN GRID ENVIRONMENT

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In September 2009 the new Italian GPS receiver for Radio Occultation was launched from Satish Dhawan Space Center (Sriharikota, India) on board the Indian Remote Sensing OCEANSAT-2 satellite. The Italian Space Agency has established a set of Italian universities and research centers to implement the overall processing Radio Occultation chain, it consists of seven main steps, named Data Generators, execute in series in a specific order. The contribution presents the method for automatic chain processing of Radio Occultation data, from raw data to the characterization of the temperature, pressure and humidity, using a grid computing environment in order to reduce the time elaboration. The grid lets share computing power, databases, and other tools securely across corporate, institutional, and geographic boundaries without sacrificing local autonomy our solution allows to make a collaborative framework between research centers, university and distributed data in Italy, where physicists and computer engineers need to work together to process data in efficient way.