



Processing of radio occultation signals: preliminary results from the Italian ROSA ROSSA team

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Within this year (2008), Italy will have a GPS receiver for radio-occultation on-board the Indian satellite OCEANSAT-II. The development of the data processing software is in progress. Other than the data-processing software development goal, we stress on the importance of acquiring experiences on radio-occultation activity. In fact, the team is applying its competencies and is acquiring new ones. The exchanges with other actors on the worldwide scene of radio-occultation will be a next fundamental step.

Here, we shall show the results obtained during the different stages needed to transform the information from the L1 and L2 excess phase data to the retrieval of refractivity and temperature. Being at an initial stage, algorithms and background data adopted for the processing activities are not sophisticated, since only the geometric optics approach has been yet implemented. Despite this, results obtained through the processing of CHAMP and COSMIC excess-phase observations are promising. The Authors are grateful to ASI for supporting this project.