In 2006, the Japanese Space Agency (JAXA) launched the Advanced Land Observing Satellite (ALOS), carrying a C-band imaging radar named PALSAR. A full coverage of the Sahara and Arabian deserts was acquired during summer 2007, delivering tens of Gigabytes of radar images. This first and unique global coverage of African deserts allowed the discovery of major palaeoenvironments (e.g. Skonieczny Ch., et al. (2015) Nature Comm., doi: 10.1038/NCOMMS9751) as well as major palaeohydrological patterns (Elachi C., et al. (1984) IEEE TGARS, GE 22, 383-388.).[1-3] The whole dataset is managed with the help of a specific tool we developed: Saharasar. It is freely accessible through a dedicated web site [5], and constitutes a unique tool for the scientific community to study the palaeo-environment and palaeoclimate of North Africa and Arabia.

**Acknowledgments:**

The whole PALSAR dataset is stored on a file server, and the metadata are managed in a Mysql database with spatial attributes ( bacnetDB, Bâtiment B18N, allée Geoffroy Saint-Hilaire, 33615 Pessac – Bordeaux Cedex, France). The Saharasar server is accessed under sandy soils [1],[2].

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**SAHARASAR : AN INTERACTIVE SAR IMAGE DATABASE FOR DESERT MAPPING**

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**References:**

5. S. Lopez and Ph. Paillou, University of Bordeaux, UMR CNRS 5804 – LAB, Bâtiment B18N, allée Geoffroy Saint-Hilaire, 33615 Pessac Cedex, France

**Data availability:**

A full coverage of the Sahara and Arabia was acquired by the PALSAR sensor, in dual-polarization mode, during June and July 2007. The 10 m full-resolution data were processed by JAXA to produce 50 m geocoded strips, which were ingested into our data processing and mosaicking software. We developed a fully automated data processing chain that produces geocoded 1° × 1° SAR mosaics, which can be superimposed on the corresponding SRTM (Shuttle Radar Topography Mission) topography tiles. More than 600 dual-polarization PALSAR strips were needed in order to cover the entire Sahara and Arabian deserts. The final mosaic covers latitudes between 17°S and 40°N, and longitudes between 15°E and 50°E.

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