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ABSTRACT
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Roberto Ricciu is an engineer and an associate professor of applied environmental thermodynamics. He graduated in civil engineering from the University of Cagliari in 2000. At the same University he obtained a master's degree in quality management (2001) and a postmaster training (2002). He ia also qualified as naval mechanical engineer (2004). Since 2002 he was Researcher RTI with teaching at the same University, developing research in the field of mechanical and thermal measurements, that over time have led to greater attention to the thermal part of heat exchanges and then to technical thermodynamics. He is scientific referent of the Energy Efficiency Laboratory of DICAAR. He is also a referee and reviewer of scientific journals such as 'Journal of Mechanics and Control, Energy and Buildings', 'International Journal of Heat and Mass Transference'. He is the author over 50 papers on national conferences and international, in national and international journals and patents. He was also awarded for his national and international scientific works. Through the Erasmus programme and other international projects he is active in international relations with several foreign universities.

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TOWARDS THE DYNAMIC CHARACTERIZATION OF NEAR-SURFACE LITHOLOGY IN NORTHERN SAHARA REGION BY SATELLITE THERMOGRAPHY (FIRST RESULTS)

This work deals with a survey on the dynamic thermal response of the subsoil shallowest layers to the natural energization given by the sun radiation, carried on with the best observational condition in terms of both the reciprocal sensor-target position and the variability of the radiative parameters of the exposed surfaces. The experimental approach is based on the exploitation of high-temporal-resolution satellite thermal data over the northern sector of the African continent, in large part featuring the Sahara desert. We employed time-series of Land Surface Temperature (LST), estimated by Eumetsat agencies mostly to compensate for atmospheric and surface spectral variables; raw data are (mostly) based on the thermal infrared (TIR) images gathered by Meteosat meteorological satellite from the closest geostationary orbit to the investigated area.