



SOLAR AND AEOLIC ENERGY VARIABILITY AT SOUTHERN OF BRAZIL

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Astronomical and atmospheric phenomena are responsible for the variability of the radiation balance on Earth's atmosphere. This reflects on the wind fields since the kinetic energy of the winds is resulted by the pressure gradients originated by combinations of processes of differential heating of air masses, continental and maritime, with the rotation of the planet. The availability of qualified climatic and environmental data is essential for the development of models for the assessment of solar and wind energy resources. The South Regional Space Observatory- SSO/CRSPE/INPE-MCT - Lat. 29,44°S, Long. 53,82°O - located in São Martinho da Serra- RS, Brazil is the site of one of the five national reference stations of the SONDA project (National Network of Environmental Data for Renewable Energy Resource Assessment). This station is equipped with sensors to measure solar and atmospheric radiation, such as the Pyranometer CM 21, Pyranometer CM 22, Pyrheliometer, PAR Lite, LUX Lite and the PIR, and equipments to measure meteorological data, such as wind monitor, sensors of temperature, humidity and pressure. This work presents the variability of the intensity of the incidence of solar and atmospheric radiation at surface and the oscillations observed in the air masses in low altitude, that occurs from the Solstice of Winter to the Solstice of Summer in the Southern Brazil in the year of 2004/2005.