NASA/ADS

New approach for calculating a QDC using detectability of radar signals applied to riometer data ()

Moro, Juliano (/search/?q=author%3A%22Moro%2C+Juliano%22) ;
Correia, Emília (/search/?q=author%3A%22Correia%2C+Em%C3%ADlia%22) ;
Marcos Denardini, Clezio (/search/?q=author%3A%22Marcos+Denardini%2C+Clezio%22)
;
Abdu, Mangalathayil Ali (/search/?q=author%3A%22Abdu%2C+Mangalathayil+Ali%22)
; Makita, Kazuo (/search/?q=author%3A%22Makita%2C+Kazuo%22) ;
Araujo Resende, Laysa Cristina (/search/?q=author%3A%22Araujo+Resende%2C+Laysa+Cristina%22)
;
Santos Carvalho Almeida, Pedro Daniel (/search/?q=author%3A%22Santos+Carvalho+Almeida%2C+Pedro+Daniel%22)
; Guizelli, Lais Maria (/search/?q=author%3A%22Guizelli%2C+Lais+Maria%22) ;
Schuch, Nelson Jorge (/search/?q=author%3A%22Schuch%2C+Nelson+Jorge%22)

For accurate study of ionospheric absorption, the determination of high-quality quiet day curve (QDC) is essential since it is the baseline from which absorption values obtained from riometer data are derived. In this study we compare two methods for determining a QDC from riometer measurements of cosmic radio noise. The first technique is the ordinary approach based on the percentage criterion to a full month a data. The second one is based on algorithms traditionally used to process radar signals, which considers statistical methods. The analysis will be applied to 38.2 MHz riometer data from Southern Space Observatory (SSO/CRS/INPE -MCT, 29.4o S, 53.8o W, 480 m a.s.l.), São Martinho da Serra-RS, Brazil, and compared with QDC obtained a during geomagnetic quiet days on 2007 and 2008. We will also present preliminary results during disturbed periods of October 2007 and September 2008.

Publication:
38th COSPAR Scientific Assembly

Pub Date:
2010

Bibcode: