Interactive comment on “Tree-ring width wavelet and spectral analysis of solar variability and climatic effects on a Chilean cypress during the last two and a half millennia” by N. R. Rigozo et al.

N. R. Rigozo et al.

Received and published: 18 October 2005

Referring the influences of the events El Nino events on trees-ring growth, we agree with the referees that deepened studies should be made. This work is the first one to be published by us in order to introduce these considerations The reference Lara et al. 2000 was already mentioned in the first version of the article, a flaw happened, in which it was omitted in the reference list, but this was already corrected. The reviewer’s suggestion of analyzing a monthly the climate/cypress growth relationship doesn’t make sense in this article, because data are annual and not monthly. Remarks from a dendrochronological points: 1. Yes, the time series was obtained from only one tree sample. The program TIIAA works with images of tree-rings that it allows to obtain a mean series of several radii, about 10 to 50 radii or more depending on the sample disk 2. Unfortunately we got an only sample with this time span, because the difficulties of
obtaining such samples are many due the enforcement of environmental protection laws. Thus, we based our work on Lara et al. 2000 study, that says that individual series of Fitzroya cupressoides that present great temporal extension (larger than 900 years) are appropriate to study frequency signals, as it is the case of this article. 3. As mentioned previously, the difficulties of obtaining samples of trees with that temporal extension are difficult, so when we have some sample in hand it does not seem clever to wait for more improbable samples. Studies on old trees such as Fitzroya cupressoides were done for Lara et al. 1993 and 2000. Our work is based on their works, with the difference that we give a vision oriented to a possible Sun-Earth relationship and not so much climatic one. Regarding Fig. 3 and 4, they will be available as colored in electronic edition in order to facilitate their reading. As most of the magazines ask for payment to publish colored illustrations and because our institute doesn't permit such payment because of budget restrictions, we decided to submit the article with figures in grayscale.

Interactive comment on Climate of the Past Discussions, 1, 121, 2005.