We read the paper with interest. We have performed similar analysis on atmospheric-
CO₂ hourly data at several sites worldwide. In fact about a couple of years earlier we
had run DFA on monthly mean CO₂ data from MLO (by Dave Keeling and coworkers
at SIO, 2004) and on a paleo record of CO₂ from ice cores (Barnola et al., 2003). Then
we failed to established persistent long-range correlations in CO₂ records. This is in
agreement with the short comment by Dr. Imre M. Janosi.

Later high frequency CO₂ data (hourly time interval) became available and we have re-
visited this issue. We have extended correlation statistics using power-law and wavelet
analysis. Such analyses have been suggested by the reviewers too. These statistics
are also derived for atmospheric general circulation model based transport model sim-
ulations of atmospheric-CO$_2$. The similarity and difference in correlations statistics of observed and modelled CO$_2$ are discussed.

We have prepared a manuscript using these analysis, which is available from the X-Archive database (Patra et al., 17 Oct 2006). The authors might be aware of this article, and we believe it is of relevance to the discussions in ACPD.

References:


Interactive comment on Atmos. Chem. Phys. Discuss., 6, 11957, 2006.