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Comment on "High resolution coherence analysis between planetary and climate oscillations"

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Abstract

The paper by Scafetta entitled "High resolution coherence analysis between planetary and climate oscillations", May 2016 claims coherence between planetary movements and the global temperature anomaly. The claim is based on data analysis using the canonical covariance analysis (CCA) estimator for the magnitude squared coherence (MSC). It assumes a model with a predetermined number of sinusoids for the climate data. The results are highly dependent on this prior assumption, and may therefore be criticized for being based on the opposite of a null hypothesis.

More importantly, since values of key parameters in the CCA method are not given, some experiments have been performed using the software of the original authors of the CCA estimator. The purpose was to replicate the results of Scafetta using what was perceived to be the most probable parameter values. Despite best efforts, this was not possible.

Key words: Planetary motion, Climate change, Climate Model

1. Introduction

The concern here is the claim set forth in (Scafetta, 2010) that there is significant coherence between planetary movement and the global temperature series. In this way a major part of the temperature rise is explained as a natural oscillation caused by conditions in the solar system.

The argument for a planetary origin in (Scafetta, 2010) is based solely on data analysis. The two data series in question are the HadCRUT3 global temperature anomaly, (Brohan et al., 2006), and the speed of the center of mass of the solar system (SCMSS) generated by the Horizons system of JPL.

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