



Phase relations between orbital forcing and terrestrial response in the equatorial Atlantic over the last 10 Ma

C. Zeeden, J. de Jonge, F.J. Hilgen, and L. Lourens
University Utrecht, Netherlands (c.j.r.zeeden@uu.nl)

Recently generated high resolution $d_{18}O$ and $d_{13}C$ data of benthic foraminifera (average temporal resolution <3 kyr) from Ceara Rise in the equatorial Atlantic (ODP Leg 154, Site 926) are presented for the interval between ~ 9 and ~ 10 Ma. We determine the precession and obliquity phases of this data relative to the orbital target, and compare our data with existing younger datasets from Ceara Rise.

We further explore the effect of changing the tidal dissipation parameter on the phase relations for this time interval as the effects of tidal dissipation and/or dynamical ellipticity have so far hampered the construction of a high resolution tuned timescale for the Miocene.

The research leading to these results has received funding from the [European Community's] Seventh Framework Programme ([FP7/2007-2013] under grant agreement n° [215458]. This research used data provided by IODP. Funding for this research was provided by NWO.