



**Figure S3:** Correlation of obliquity (a), eccentricity (b) and sea level (c) cycles during the past 800 ka (Miller, 2005; see 'Milankovitch Cycles' in Wikipedia) indicates more circular Earth orbits (low eccentricity) correlate to colder climates and glaciations. During the most circular orbits at c. 370 and 435 ka bounding eccentricity cycle e5, grey obliquity cycles k and m are not expressed in the sea level cycle during Glaciations 10 and 12. In contrast, yellow obliquity cycles are expressed in the sea-level curve during eccentricity high values and interglacial intervals. Green obliquity cycles are expressed in the sea-level curve during changes in high eccentricity cycles coinciding with obliquity cycles. High-frequency sea-level cycles of the order of 5–20 m may be driven by precession cycles.