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Model-Data Comparisons for the Early Eocene climates

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The Early Eocene represents the most recent time period of extreme global warmth. A range of palaeoclimate data suggests that the period was relatively ice free, with very warm Arctic and tropics warmer than present day. We use a fully coupled atmosphereocean-vegetation Earth system model to examine this time period. The model includes a representation of oxygen isotopes so that we can directly predict one of the important climate proxies. Detailed comparisons suggests that the model compares well with tropical and southern hemisphere data, but the Arctic remains a challenge for the model. The role of seasonality will be discussed.