



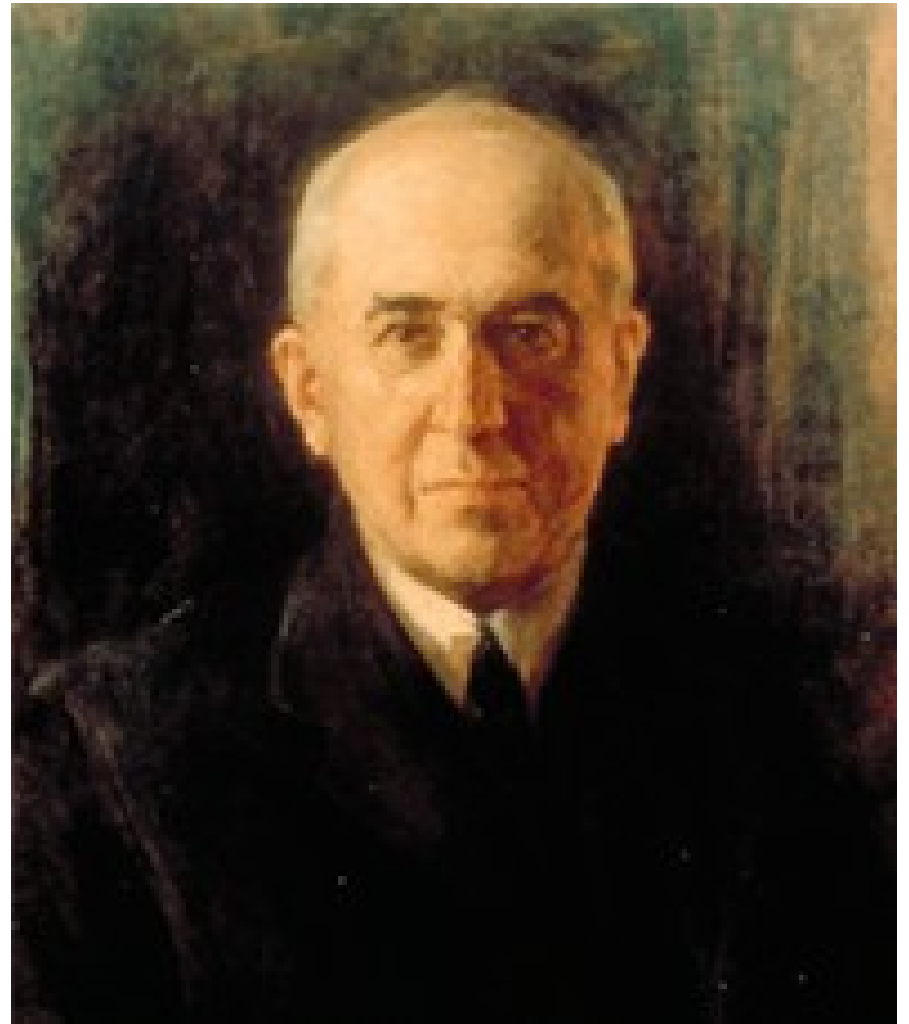
Milankovičova teorie změn zemského klimatu

Moduly jako prostředek inovace v integraci výuky
moderní fyziky a chemie, CZ.1.07/2.2.00/28.0182



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

Milutin Milanković
1879–1958
srbský astronom
a matematik



Evropská krajina, kdy byl svět o 6 °C chladnější: dominantní ekosystém tundra a ledovce

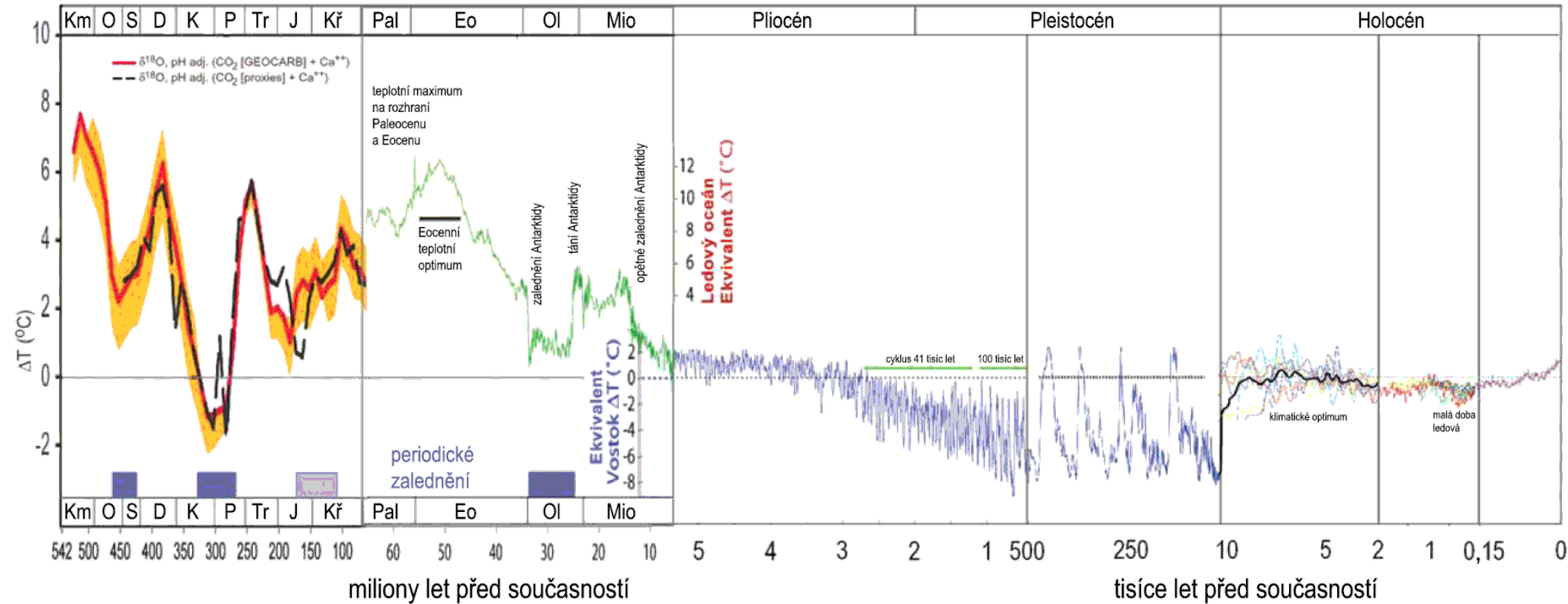


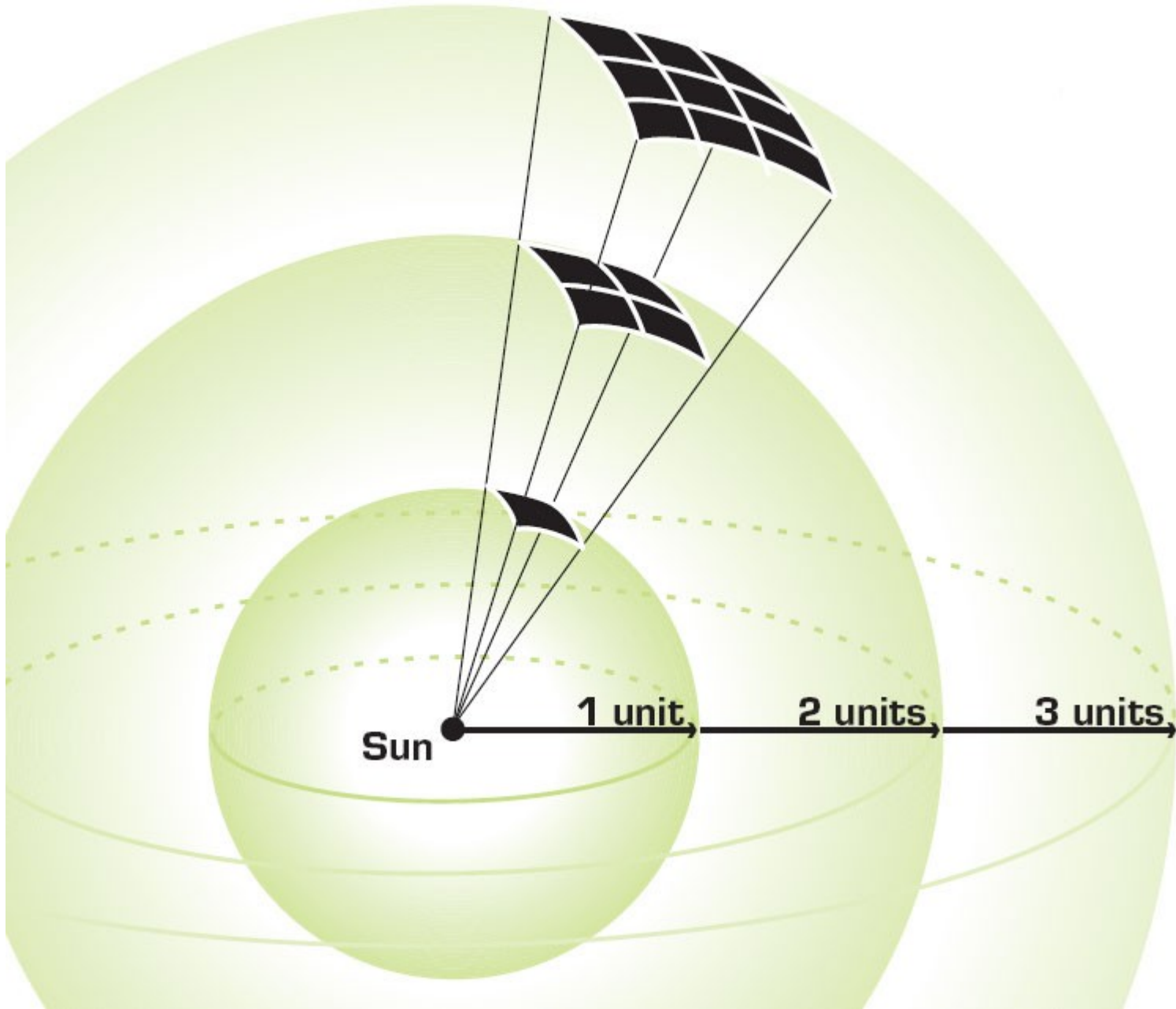
Evropa před 20 000 roky

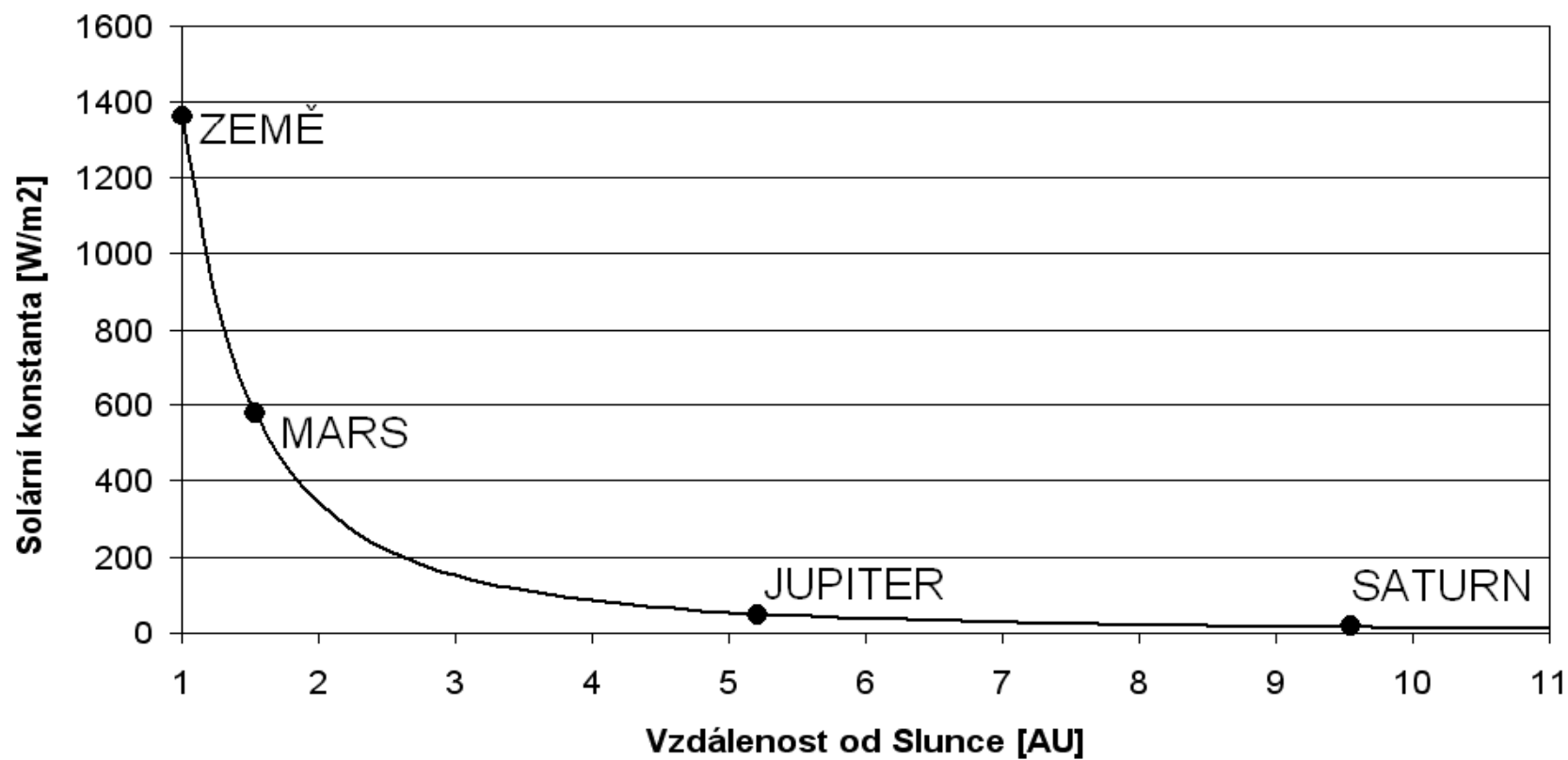
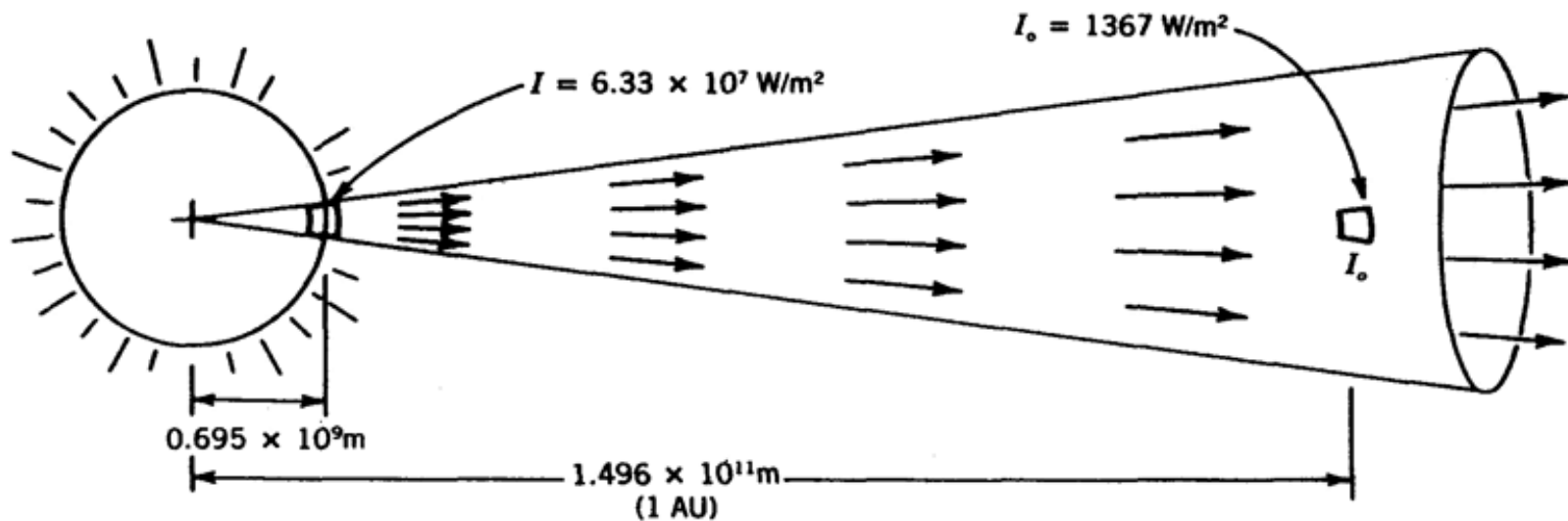


Oblasti pokryté ledovcami v Pleistocéne

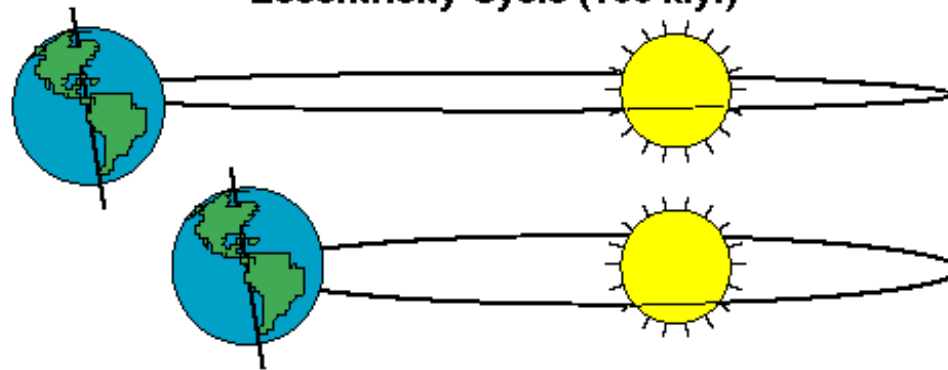
Vývoj teploty planety Země



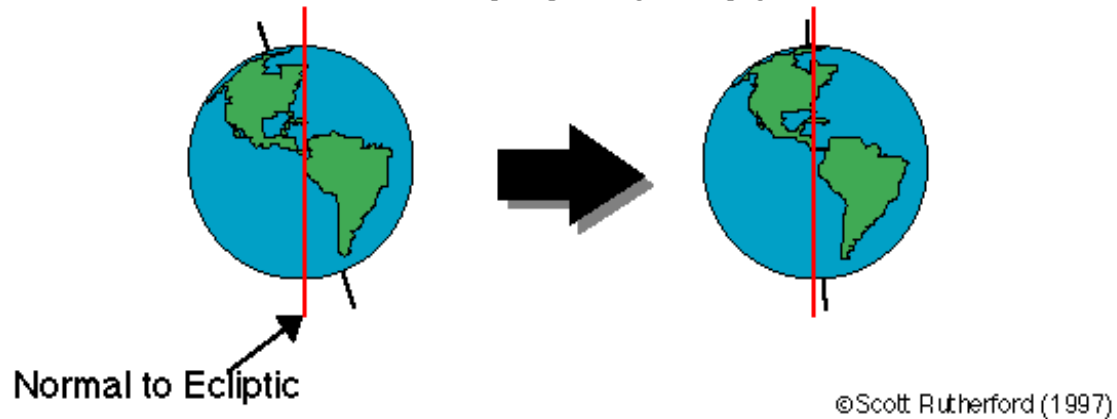




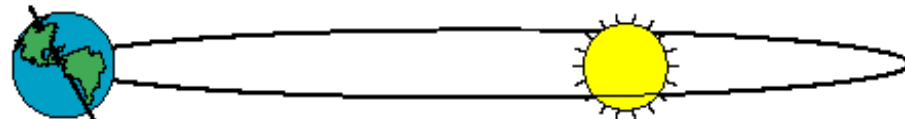
Eccentricity Cycle (100 k.y.)



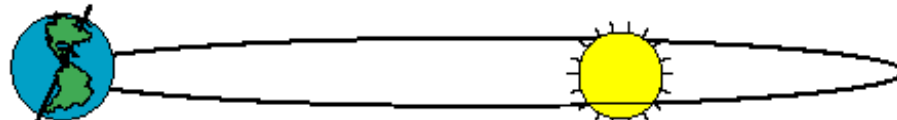
Obliquity Cycle (41 k.y.)



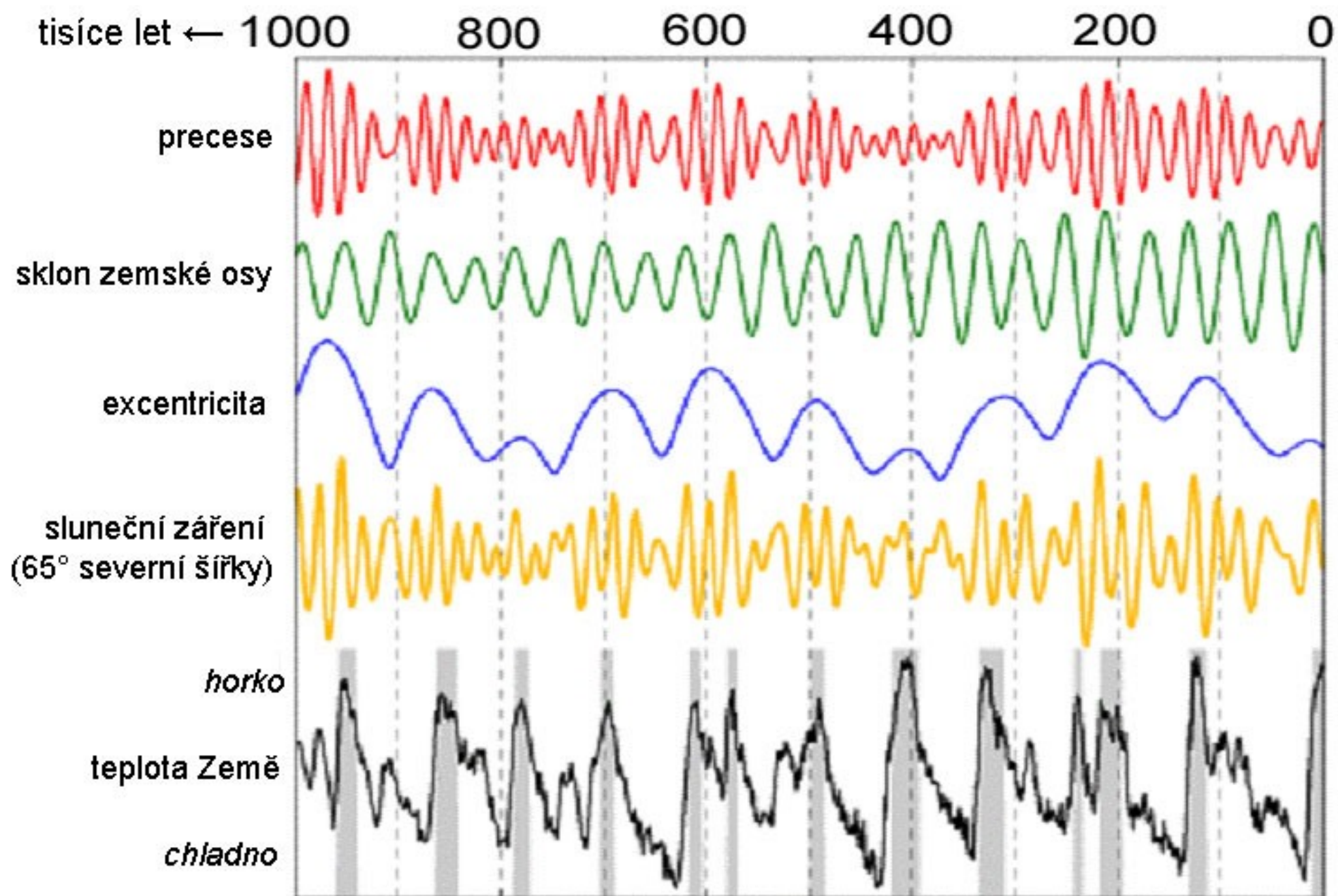
Precession of the Equinoxes (19 and 23 k.y.)

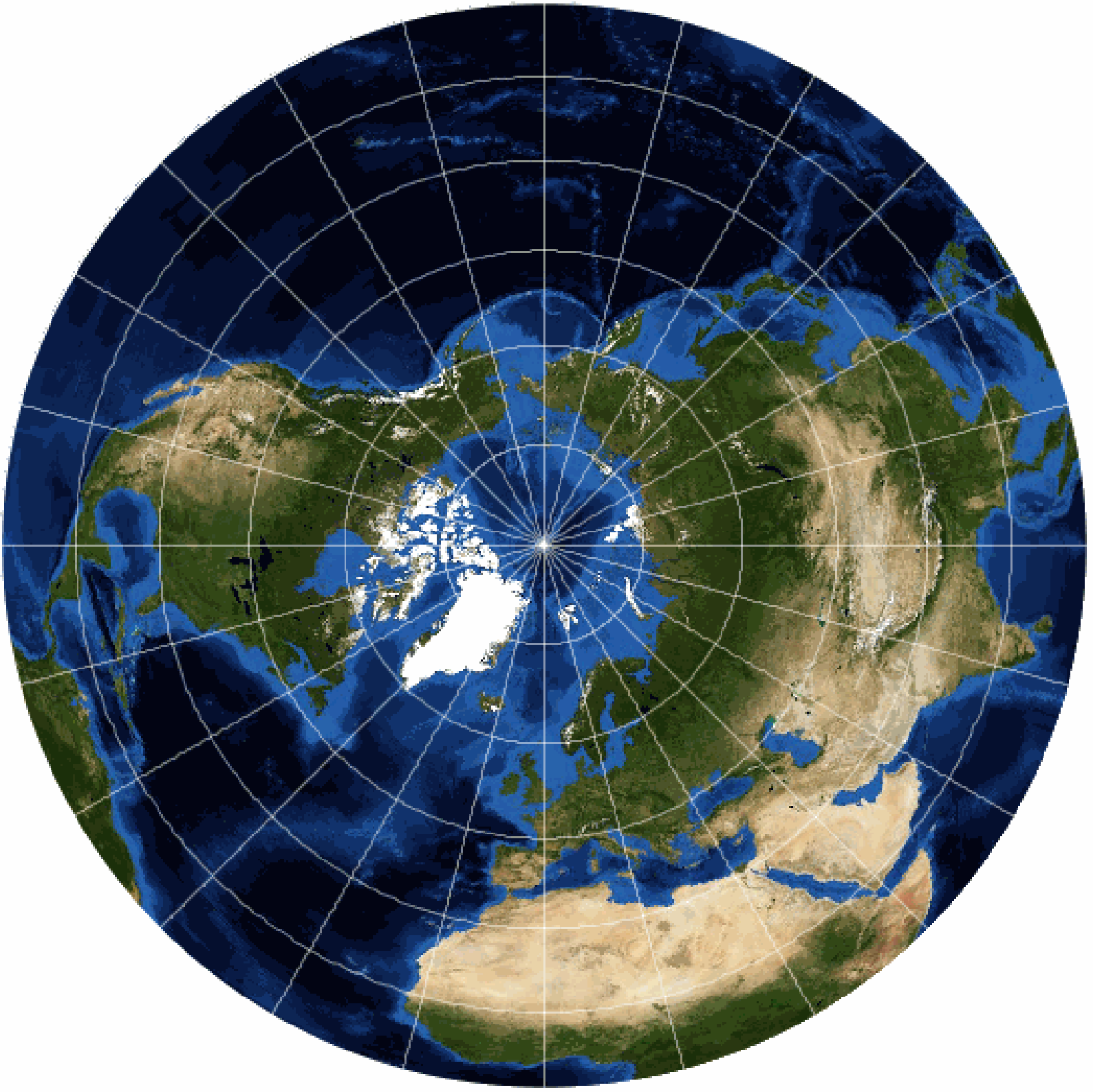


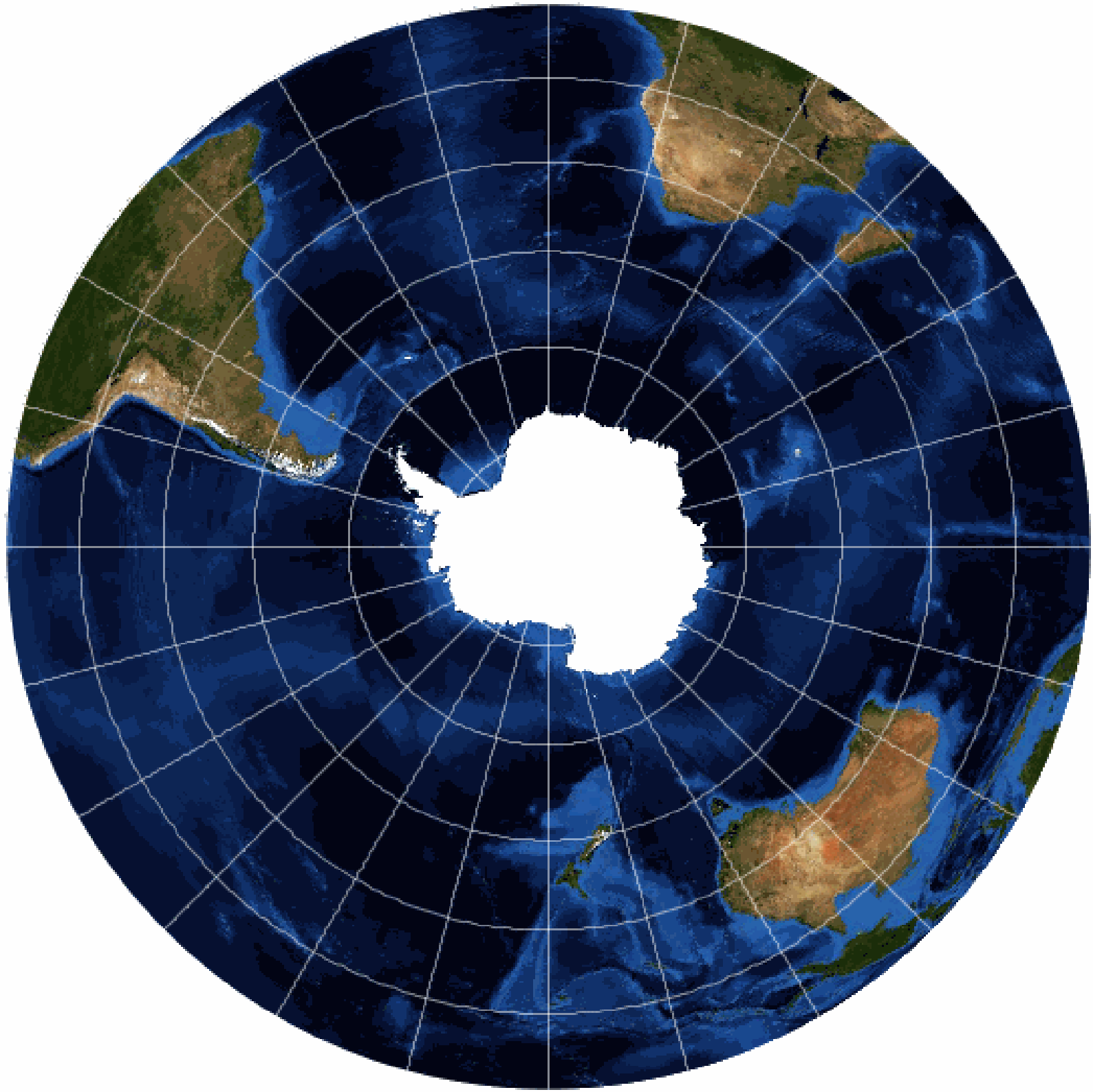
Northern Hemisphere tilted away from the sun at aphelion.

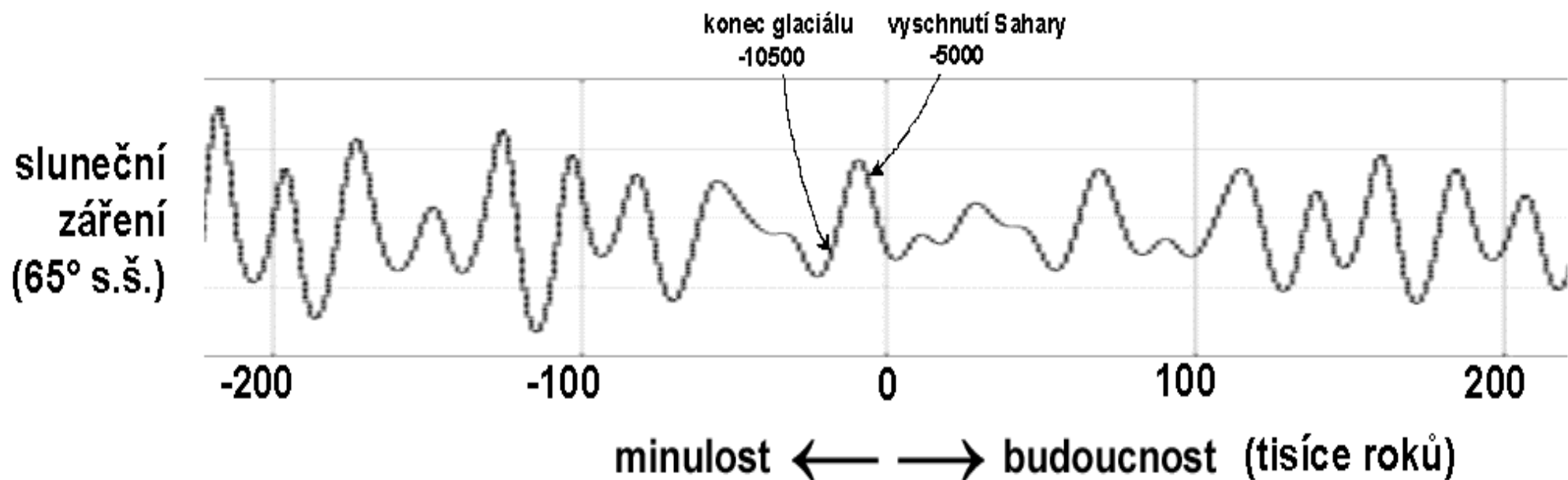
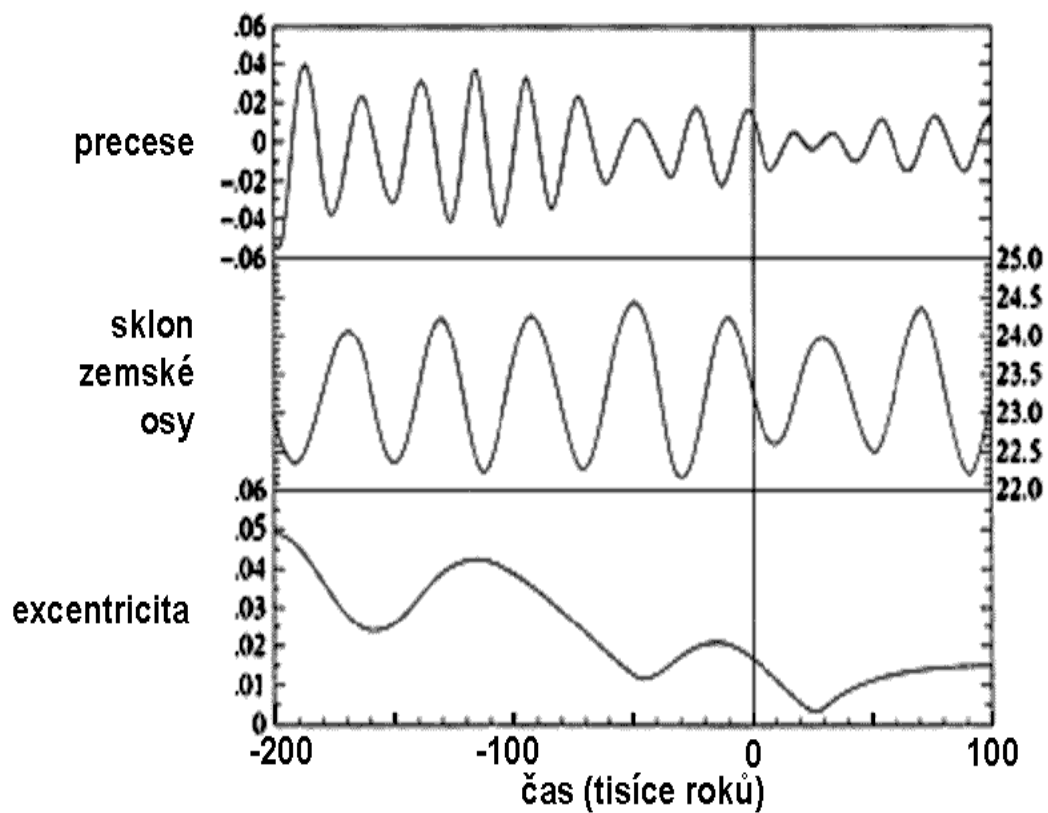


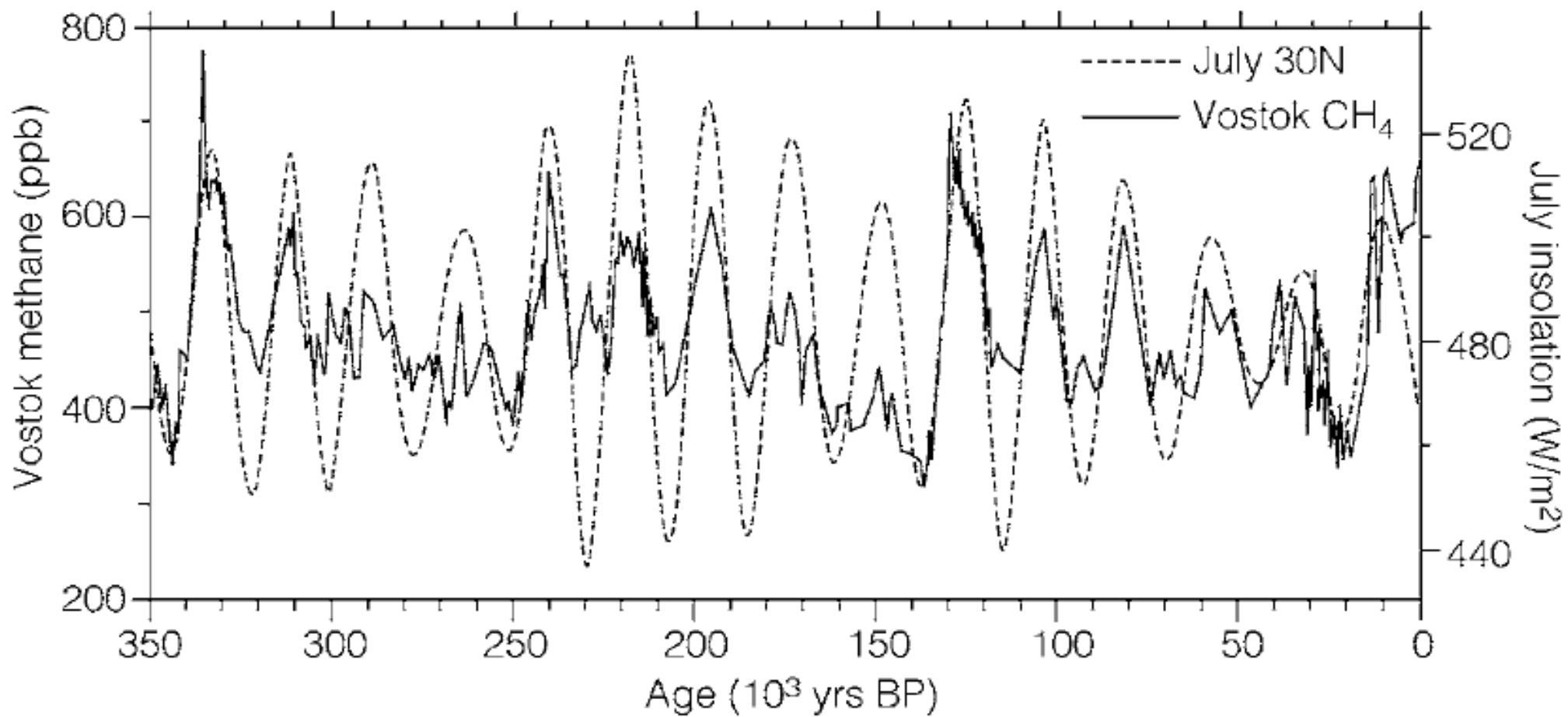
Northern hemisphere tilted toward the sun at aphelion.

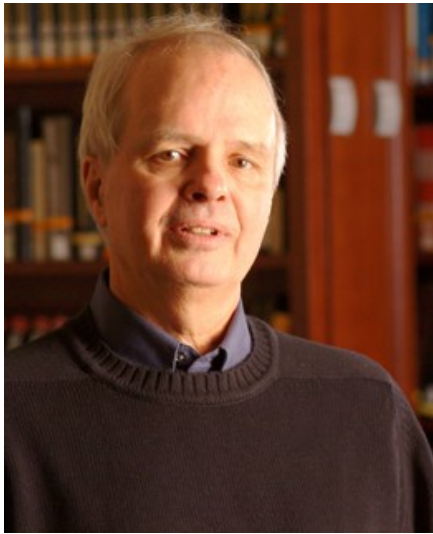




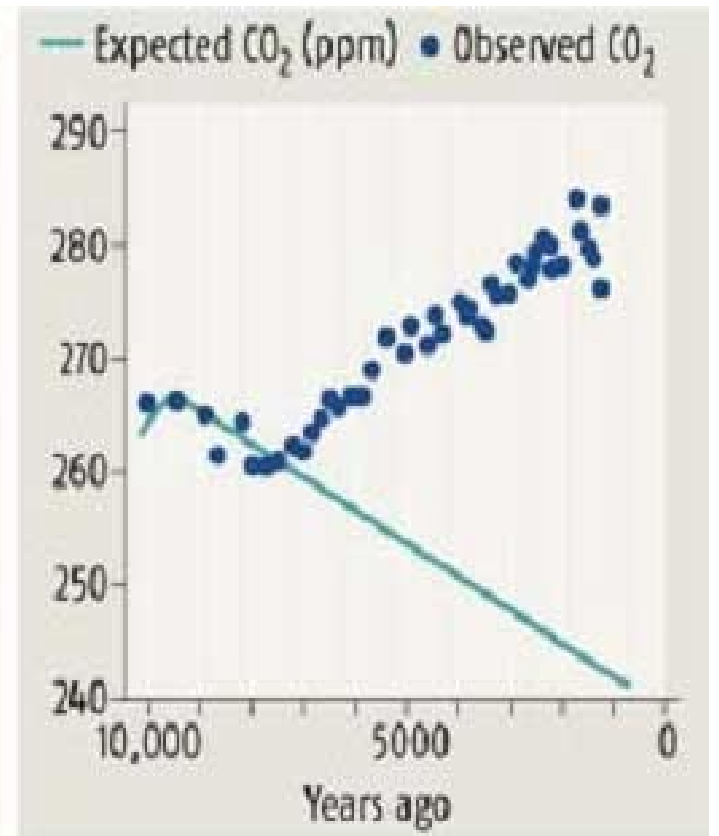
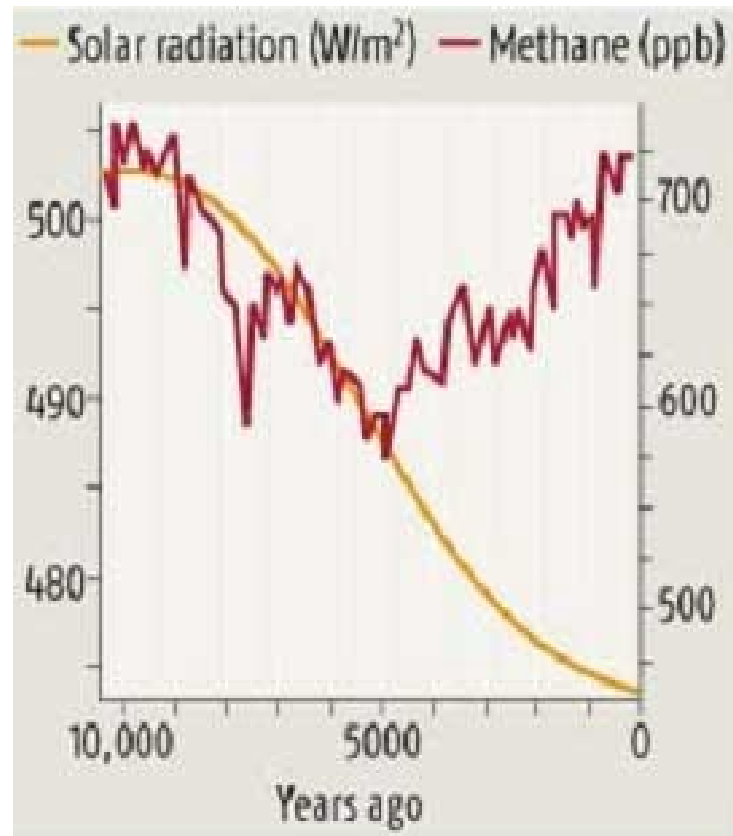








William
Ruddiman



Zdroje obrázků a informací

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http://amper.ped.muni.cz/gw/clanky/doba_led.pdf

http://stephenschneider.stanford.edu/Publications/PDF_Papers/Ruddiman2003.pdf

<http://deschutes.gso.uri.edu/~rutherfo/milankovitch.html>

<http://www.czp.cuni.cz/knihovna/publikace/klimaticke-zmeny-web.pdf>

<http://www.icsm.gov.au/mapping/coordinates.html>

<http://phenomena.nationalgeographic.com/2013/03/12/the-promise-and-pitfalls-of-resurrection-ecology/>