

综述

我国对末次冰期冰盛期东亚区域气候模拟的研究

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摘要 末次冰期冰盛期(或称为末次盛冰期),为第四纪更新世最后一个冰期的鼎盛时期,该时期的气候与当代气候迥然不同。近年来,中国科研工作者已就末次冰期冰盛期东亚区域气候开展了一些数值模拟工作。结果表明:该时期中国大陆地表气温降低,中东部地区降水显著减少,东亚冬季风增强、夏季风显著减弱。在国际古气候模拟比较计划(PMIP)标准试验的基础上,进一步指出东亚植被的反馈作用、青藏高原可能冰川的反馈作用、以及西太平洋表面温度的作用能够引起额外的气候效应,可在一定程度上改进PMIP标准试验的模拟效果。

关键词 [末次冰期冰盛期](#) [数值模拟](#) [东亚区域](#)

分类号

Advances in East Asian Paleoclimate Modelling for the Last Glacial Maximum by China

Abstract The Last Glacial Maximum (LGM) is about 21000 calendar years before present, with climate conditions significantly different from the present. Some numerical experiments for this period have been performed in China in recent several years. It is revealed that the LGM was generally characterized by lowered surface temperature relative to the present over China inland, decreased precipitation in the central and eastern China, intensified East Asian winter monsoon and weakened East Asian summer monsoon. Moreover, based on the boundary conditions recommended by the Paleoclimate Modelling Intercomparison Project (PMIP), it is further indicated that vegetation feedback in East Asia, possible ice sheet over the Tibetan Plateau, and sea surface temperature reconstruction in the western Pacific different from the PMIP data source can induce additional climate effects, which partly reconcile model-paleodata discrepancies as displayed by the standard PMIP simulations.

Key words [Last Glacial Maximum \(LGM\)](#) [modelling](#) [East Asia](#)

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