We plan to conduct a global climate simulation over the past 2000 years with the coupled global model MPI-ESM-P driven by realistic estimations of past changes in earth’ orbital parameters, greenhouse gas forcing, total solar irradiance, volcanic activity and land-use changes. This simulation belongs to the DFG project Prime-II (Precipitation in Europe in the past Millennium, extension to Roman times) that started in May 2012, a collaboration between the Helmholtz-Zentrum Geesthacht and the University of Giessen (Prof. Jürg Luterbacher). This project is framed by the DFG priority program INTERDYNAMIK.