Modeling of the mineral dust cycle under present and glacial climate conditions
Tim Hannemann (PEP)

Mineral aerosols directly and indirectly influence the radiative properties of the atmosphere, biogeochemical cycles and thus the climate system earth as a whole. In order to improve the understanding of dust fluxes in the atmosphere, the dust cycle has been simulated under present and glacial climate conditions, using the atmospheric general circulation model ECHAM5-HAM2. Two different vegetation distributions have been implemented in order to estimate the controls of vegetation coverage onto the emission of dust into the atmosphere. The resulting annual mean dust burden and the seasonality of the dust cycle are presented in this talk.