Testing deep convection parameterization schemes from a case study with single column model and global simulation

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To build up convective parameterization scheme in a new NWP model of KIAPS (Korea Institute of Atmospheric Systems), we performed a test of two deep convection schemes (Gregory-Rowntree and Zang-McFarlane). The aim of this study is not only the validation themselves with observation, but also the comparison of two different purposed convective schemes, since Gregory-Rowntree scheme is being used in current NWP model (Unified model) and Zang-McFarlane scheme is adopted in global climate model (NCAR CESM). We used TWP-ICE (Tropical Warm Pool-Internal Cloud Experiment) for a case study, and one month simulation results (April, 2012) for global comparison of two convective parameterization schemes.