

Atmospheric process	Scheme
Cloud microphysics	Morrison double moment (Morrison et al., 2005)
Cumulus parametrization	Grell 3D (Grell, 1993, 2002)
Land-surface physics	Noah Land Surface Model (Chen and Dudhia, 2001)
Longwave radiation	RRTM scheme (Mlawer et al., 1997)
Photolysis	Fast-J Photolysis
Planetary boundary layer	Yonsei University PBL (Hong et al., 2006)
Shortwave radiation	RRTM scheme (Mlawer et al., 1997)