

Model	Type	Reference
BCC_AVIM	LSS in BCC-ESM	Based on Oleson et al. (2004)
CABLE	LSS in ACCESS	Cuntz and Haverd (2018)
CRHM	hydrological model	Pomeroy et al. (2012)
CLASS	LSS in CanESM	Bartlett et al. (2006)
CLM5	LSS in CESM	Lawrence et al. (2018)
CoLM	LSS in BNU-ESM and CAS-ESM	Dai et al. (2003)
Crocus	snow physics model	Vionnet et al. (2012)
EC-Earth	LSS in EC-Earth	Dutra et al. (2010)
ESCIMO	snow surface energy balance model	Marke et al. (2016)
ESCROC	multi-physics snow model (35-member ensemble)	Lafaysse et al. (2017)
FSM	multi-physics snow model (32-member ensemble)	Essery (2015)
HTESSEL	LSS of ECMWF operational forecasting system	Dutra et al. (2012)
HTESSELML	LSS of ECMWF forecasting system (research)	Dutra et al. (2012)
ISBA-ES	LSS in CNRM-CM	Decharme et al. (2016)
ISBA-MEB	LSS in CNRM-CM	Boone and Etchevers (2001)
JSBACH	LSS in MPI-ESM	Roeckner et al. (2003)
JSBACH3_PF	LSS in MPI-ESM	Ekici et al. (2014)
JULES	LSS in UKESM	Best et al. (2011)
MATSIRO	LSS in MIROC	Tatebe et al. (2018)
MOSES	LSS in HadCM3	Cox et al. (1999)
ORCHIDEE-E	LSS in IPSL-CM	Wang et al. (2013)
ORCHIDEE-I	LSS in IPSL-CM	Wang et al. (2013)
RUC	LSS in NOAA/NCEP operational forecasting systems	Smirnova et al. (2016)
SMAP	snow physics model	Niwano et al. (2014)
SNOWPACK	snow physics model	Lehning et al. (1999)
SPONSOR	hydrological model	Turkov and Sokratov (2016)
SWAP	LSS	Gusev and Nasonova (2003)
VEG3D	soil and vegetation model	Braun and Schädler (2005)