

#### **CCLM Variables**

#### In out01:

W\_SO soil water content W\_SNOW surface snow amount

W\_I lwe\_thickness\_of\_canopy\_water\_amount

W vertical wind velocity
V V-component of wind
U U-component of wind
T\_SO soil temperature

T\_SNOW snow surface temperature T\_S soil surface temperature

T temperature

QV\_S surface specific humidity

QV specific humidity
QS specific snow content
QR specific rain content
QI specific cloud ice content

QC specific cloud liquid water content PP deviation from reference pressure

FRESHSNW freshness of snow

### Constant file:

HHL height

HSURF surface height FIS surface geopotential

FC coriolis parameter
FR LAND land-sea fraction

SOILTYP soil type

FOR\_E ground fraction covered by evergreen forest FOR\_D ground fraction covered by deciduous forest SSO\_STDH standard deviation of sub-grid scale orography

SSO\_GAMMA anisotropy of sub-grid scale orography

SSO\_THETA angle between principal axis of orography and east

SSO\_SIGMA mean slope of sub-grid scale orography

ALB\_DRY dry soil albedo

ALB\_SAT saturated soil albedo

## In out02:

RUNOFF\_S surface runoff
RUNOFF\_G subsurface runoff
H\_SNOW thickness of snow
CLCM medium cloud cover
CLCL low cloud cover
CLCH high cloud cover

AVMFL\_S averaged northward stress
AUMFL\_S averaged eastward stress
AEVAP\_S surface evaporation
RELHUM\_2M 2m relative humidity

V\_10M V-component of 10m wind U\_10M U-component of 10m wind

T\_2M 2m temperature
QV\_2M 2m specific humidity
PS surface pressure

PMSL mean sea level pressure
DURSUN duration of sunshine
CLCT total cloud cover

ATHB\_T averaged TOA outgoing longwave radiation

ATHB\_S averaged surface net downward longwave radiation ASOB\_S averaged surface net downward shortwave radiation averaged TOA net downward shortwave radiation

ASHFL\_S averaged surface sensible heat flux ALHFL S averaged surface latent heat flux

ALB\_RAD surface albedo

TOT PREC total precipitation amount

SNOW\_GSP large scale snowfall RAIN\_GSP large scale rainfall SNOW\_CON convective snowfall RAIN\_CON convective rainfall

## In out03 (300,400,500,800,850hPa):

RELHUM relative humidity
V V-component of wind
U U-component of wind

T temperature
QV specific humidity
FI geopotential

# Vertical coordinate:

k	Z(k) P0(k)	
1 2	22700.0000	40.2617
2 :	20800.0000	53.9582
	19100.0000	69.9812
_	17550.0000	88.5358
	16150.0000	109.2943
	14900.0000	131.6959
7 :	13800.0000	154.9601
8 :	12785.0000	179.8255
9 :	11875.0000	205.2591
10	11020.0000	232.1785
11	10205.0000	260.8520
12	9440.0000	290.6994
13	8710.0000	322.0619
14	8015.0000	354.7448
15	7355.0000	388.5191
16	6725.0000	423.4133
17	6130.0000	458.8960
18	5565.0000	494.9887
19	5035.0000	531.0771
20	4530.0000	567.5646
21	4060.0000	603.4411
22	3615.0000	639.1762
23	3200.0000	674.1020
24	2815.0000	707.9242
25	2455.0000	740.8198
26	2125.0000	772.0769
27	1820.0000	801.9229
28	1545.0000	829.6353
29	1295.0000	855.4984
30	1070.0000	879.3281
31	870.0000	900.9547
32	695.0000	920.2247
33	542.0000	937.3394
34	412.0000	952.0786
35	303.0000	964.5774
36	214.0000	974.8783
37	143.0000	983.1576
38	89.0000	989.4914
39	49.0000	994.2036
40	20.0000	997.6309
41	0.0000 1	000.0000