

University of Cocody, Ivory Coast WAMME runs

Model: RegCM

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File description:

1. ATM.<year><month><day>00.gra
Atmospheric variables
18 vertical levels from 1008.43 to 74.08 [hPa]
Horizontal resolution: 60km
Temporal resolution: 6hr

Variable	Description (Unit)
u	westerly wind (m/s) [18 levels]
v	southerly wind (m/s) [18 levels]
w	omega (hPa/s) [18 levels]
t	air temperature (K) [18 levels]
qv	air specific humidity [18 levels]
qc	cloud water mixing ratio [18 levels]
psa	surface pressure (hPa)
tpr	total precipitation(mm/day)
tgb	groud temperature in BATS
swt	total soil water in mm H2O
rno	accumulated infiltration

2. SRF.<year><month><day>00.gra
Surface variables
Horizontal resolution: 60km
Temporal resolution: 3hr

Variable	Description (Unit)
u10m	westerly wind at 10m (m/s)
v10m	southerly wind at 10m (m/s)
uvdrag	surface drag stress
tgb	ground temperature (degree)
tlef	temperature of foliage
t2m	air temperature at 2m (K)
q2m	specific humidity at 2m
ssw	upper layer soil water
rsw	root zone soil water
tpr	total precipitation (mm/day)
evp	evapotranspiration (mm/day)
runoff	surface runoff (mm/day)
scv	total snow amount
sena	sensible heat flux (W/m2)
flw	net infrared energy flux (W/m2)
fsw	net absorbed solar energy flux (W/m2)
flwd	downward infrared energy flux (W/m2)
sina	incident solar energy flux (W/m2)
prcv	convective precipitation (mm/day)
psb	surface pressure (hPa)

zdbl	PBL layer height
tgmax	maximum ground temperature (K)
tgmin	minimum ground temperature (K)
t2max	maximum 2m air temperature (K)
t2min	minimum 2m air temperature (K)
w10max	maximum 10m wind speed (m/s)
ps_min	minimum surface pressure (hPa)

3. RAD.<year><month><day>00.gra

Radiation variables

18 vertical levels from 1008.43 to 74.08 [hPa]

Horizontal resolution: 60km

Temporal resolution: 6hr

Variable	Description (Unit)
cld	cloud fractional cover [18 levels]
clwp	cloud liquid water path [18 levels]
qrs	solar heating rate [18 levels]
qrl	longwave cooling rate [18 levels]
frsa	surface absorbed solar flux
frla	longwave cooling of surface
clrst	clearsky total column abs solar flux
clrss	clearsky surface absorbed solar flux
clrlt	clearsky net upward LW flux at TOA
clrls	clearsky LW cooling at surface (W/m2)
solin	instantaneous incident solar (W/m2)
sabtp	total column absorbed solar flux W/m
firtp	net upward LW flux at TOA (W/m2)

4. CHE.<year><month><day>00.gra

Chemistry variables

18 vertical levels from 1008.43 to 74.08 [hPa]

Horizontal resolution: 60km

Temporal resolution: 6hr

Variable	Description (Unit)
trac1	tracer mix. rat (Kg/Kg) [18 levels]
trac2	tracer mix. rat (Kg/Kg) [18 levels]
trac3	tracer mix. rat (Kg/Kg) [18 levels]
trac4	tracer mix. rat (Kg/Kg) [18 levels]
aext8	aer mix. ext. coef [18 levels]
assa8	aer mix. sin. scat. alb [18 levels]
agfu8	aer mix. ass. par [18 levels]
colb_tr1	column burden inst(mg/m2)
wdlsc_tr1	wet dep lg. scale(mg/m2/d)
wdcvc_tr1	wet dep convect(mg/m2/d)
sdrdp_tr1	surf dry depos.(mg/m2/d)
xgasc_tr1	chem gas conv. (mg/m2/d)
xaquc_tr1	chem aqu conv. (mg/m2/d)
emiss_tr1	surf emission (mg/m2/d)
colb_tr2	column burden inst(mg/m2)
wdlsc_tr2	wet dep lgscale(mg/m2/d)
wdcvc_tr2	wet dep convect(mg/m2/d)

sdrdp_tr2	surf dry depos. (mg/m2/d)
xgasc_tr2	chem gas conv. (mg/m2/d)
xaquc_tr2	chem aqu conv. (mg/m2/d)
emiss_tr2	surf emission (mg/m2/d)
colb_tr3	column burden inst(mg/m2)
wdlsc_tr3	wet dep lg. scale(mg/m2/d)
wdcvc_tr3	wet dep convect(mg/m2/d)
sdrdp_tr3	surf dry depos. (mg/m2/d)
xgasc_tr3	chem gas conv. (mg/m2/d)
xaquc_tr3	chem aqu conv. (mg/m2/d)
emiss_tr3	surf emission (mg/m2/d)
colb_tr4	column burden inst(mg/m2)
wdlsc_tr4	wet dep lg. scale(mg/m2/d)
wdcvc_tr4	wet dep convect(mg/m2/d)
sdrdp_tr4	surf dry depos. (mg/m2/d)
xgasc_tr4	chem gas conv. (mg/m2/d)
xaquc_tr4	chem aqu conv. (mg/m2/d)
emiss_tr4	surf emission (mg/m2/d)
acstoarf	TOA rad forcing av. (W/m2)
acstsrrf	SRF rad forcing av. (W/m2)