Chat during DYNAMICS session

Reima Eresmaa (FMI)2:17 PM

Harold: Have you looked into stratospheric biases higher up than 100 hPa? I am seeing a cold bias (up to 10 K) in radiosonde statistics above 30 hPa in the MetCoOp system and I suspect it's a vertical interpolation issue rather than bias on model level values.

seity2:22 PM

is WENO mass conservative ?

Reima Eresmaa (FMI)2:24 PM

Thanks Harold!

Xiaohua Yang2:32 PM

Xiaohua: Q to Petra

Filip Vana2:37 PM

There is a way to use WENO/quintic or cubic interpolation for the SL trajectory since CY47. Our experience is that it needs to be combined with higher order accurate scheme in time as well to bring some real benefit.

Reima Eresmaa (FMI)2:37 PM

Is it harold dot petithomme at meteo dot fr ? You will receive an email from me soon!

Michail Diamantakis2:37 PM

Very interesting talks thanks!ce

Xiaohua Yang2:39 PM

Petra, in your test about 375m setup where you found the PC scheme to be unstable, how would time stepping size or toher settings like diffusion influence the situation?

Petra Smolikova2:43 PM

Yes, there is an impact of the time step, we would like to keep it proportional, i.e. around 15s for 375m resolution. And diffusion matters as well ... But you may not stabilize teh scheme just with diffusion setting.

Xiaohua Yang2:52 PM

Thank you Petra! And I agree on the last statement.

Xiaohua Yang2:55 PM

On time stepping, can we not allow a lower time stepping to 10s or less, just in view of the needs to explicitly represent part of turbulence ? Not so sure though. I understand the MO, NCAR, ECCC runs 100m models and am curious on what kind of time step they choose. I also read that meso-NH has been tried for Paris RDP tests. Not aware of details though.

Petra Smolikova3:18 PM

And also, Xiaohua, if the scheme is unstable, the shortening of the time step may not help at all. Unfortunatelly ...