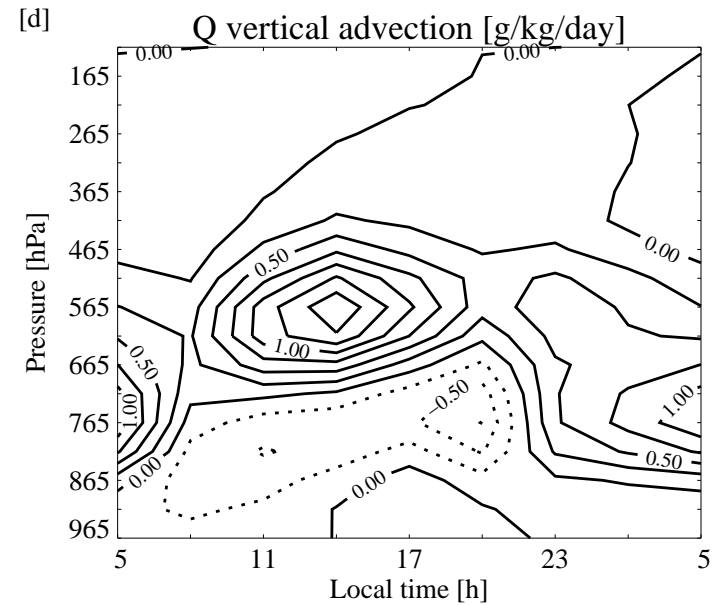
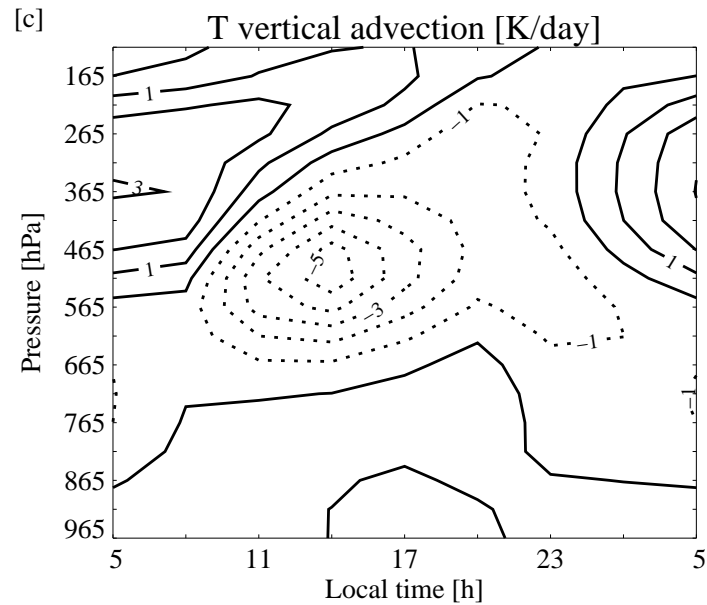
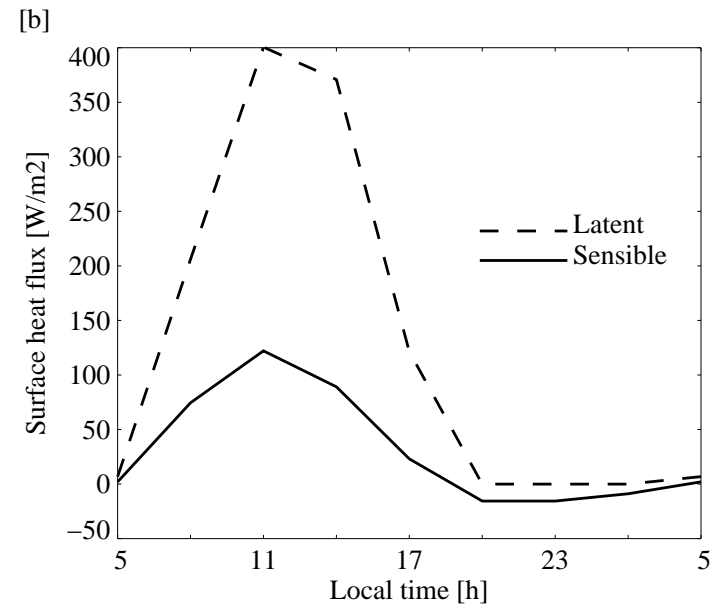
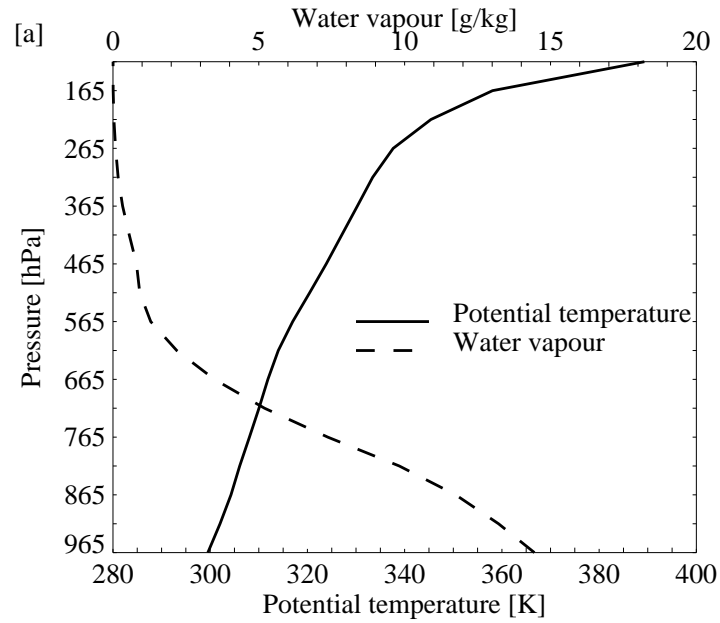

Role of stability and moisture
on the development of convection
in the EUROCS case

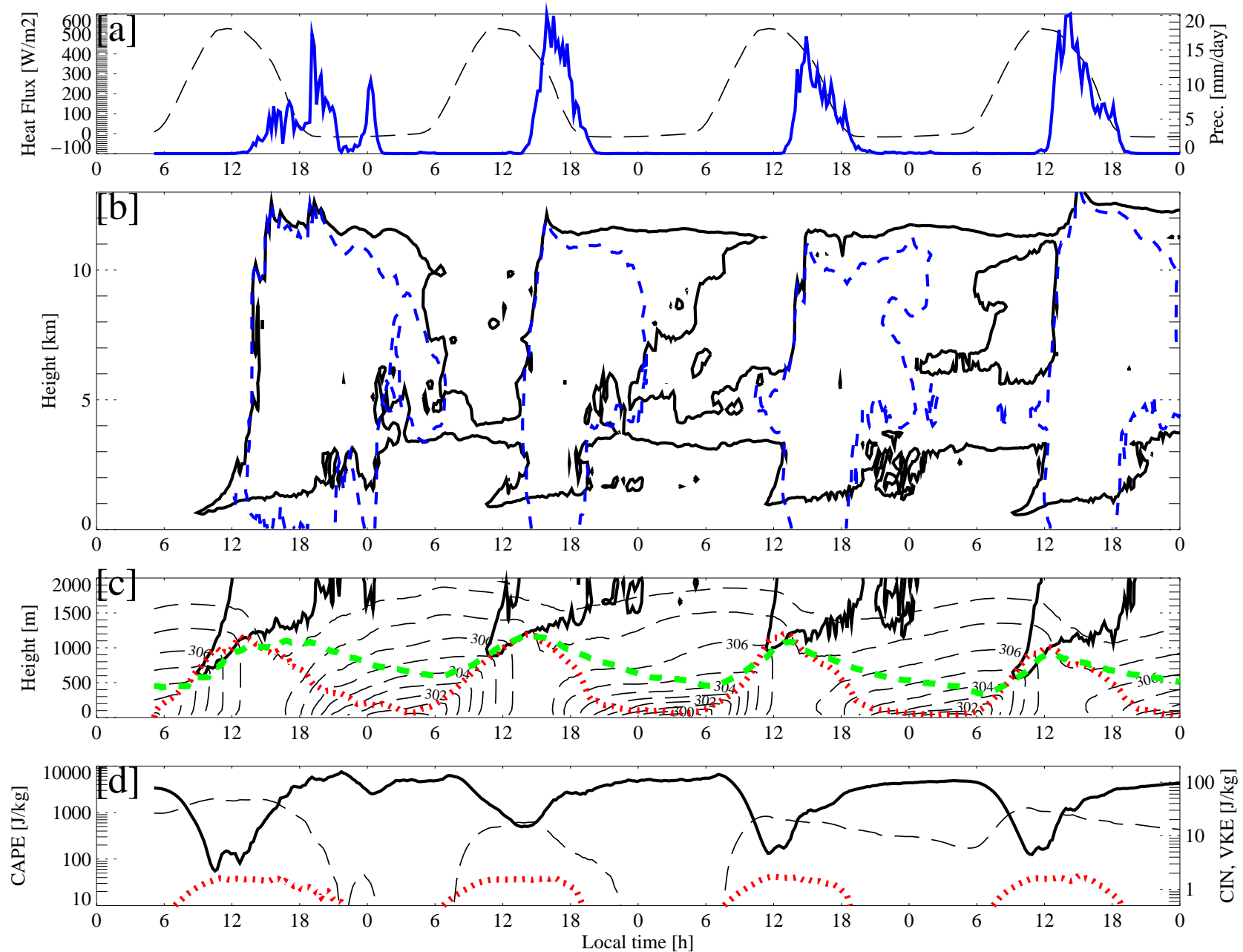
**J.-P. Chaboureau, F. Guichard,
J.-L. Redelsperger, J.-P. Lafore**

CNRM-GAME, Toulouse

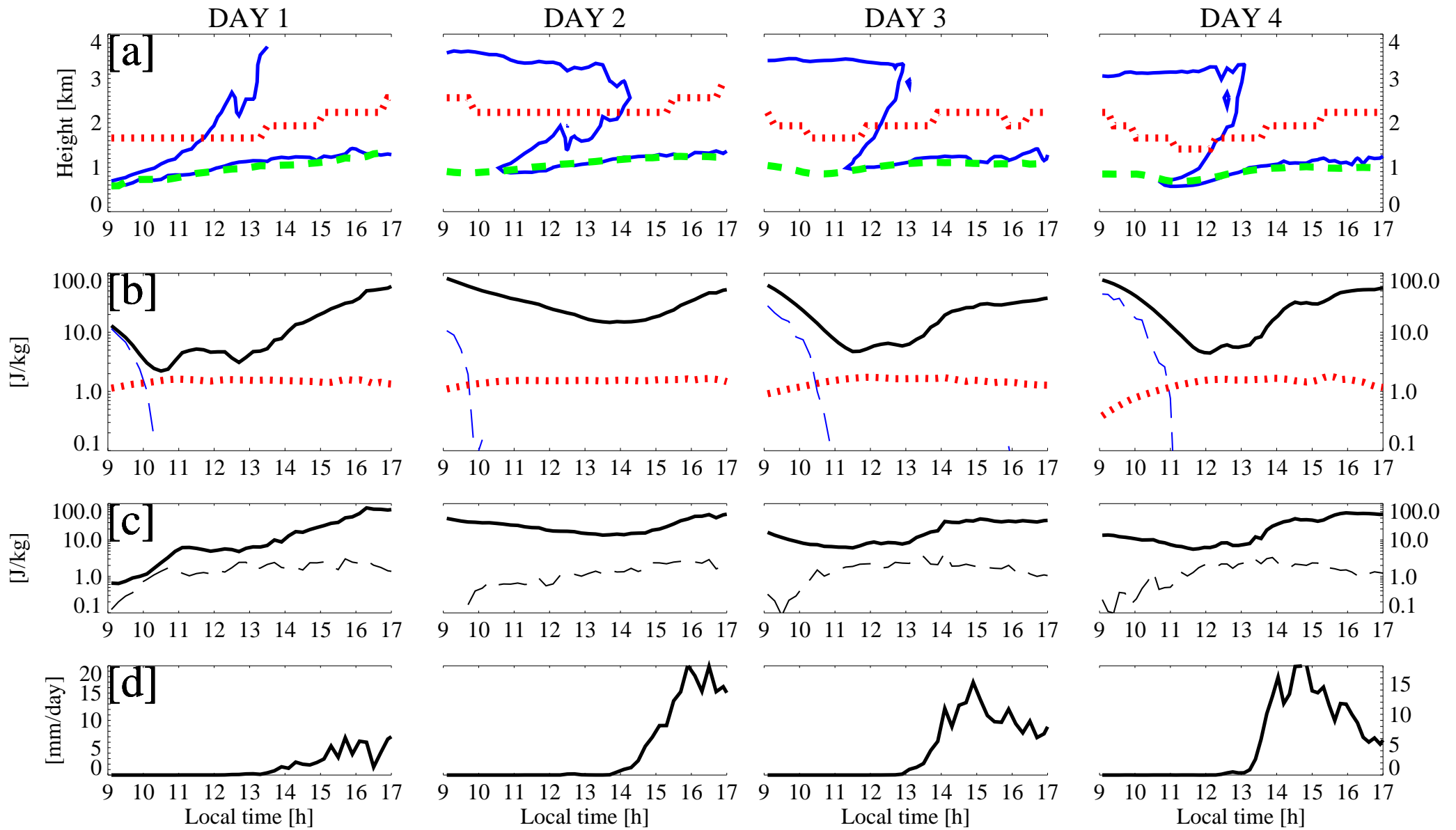
Initial conditions and forcing



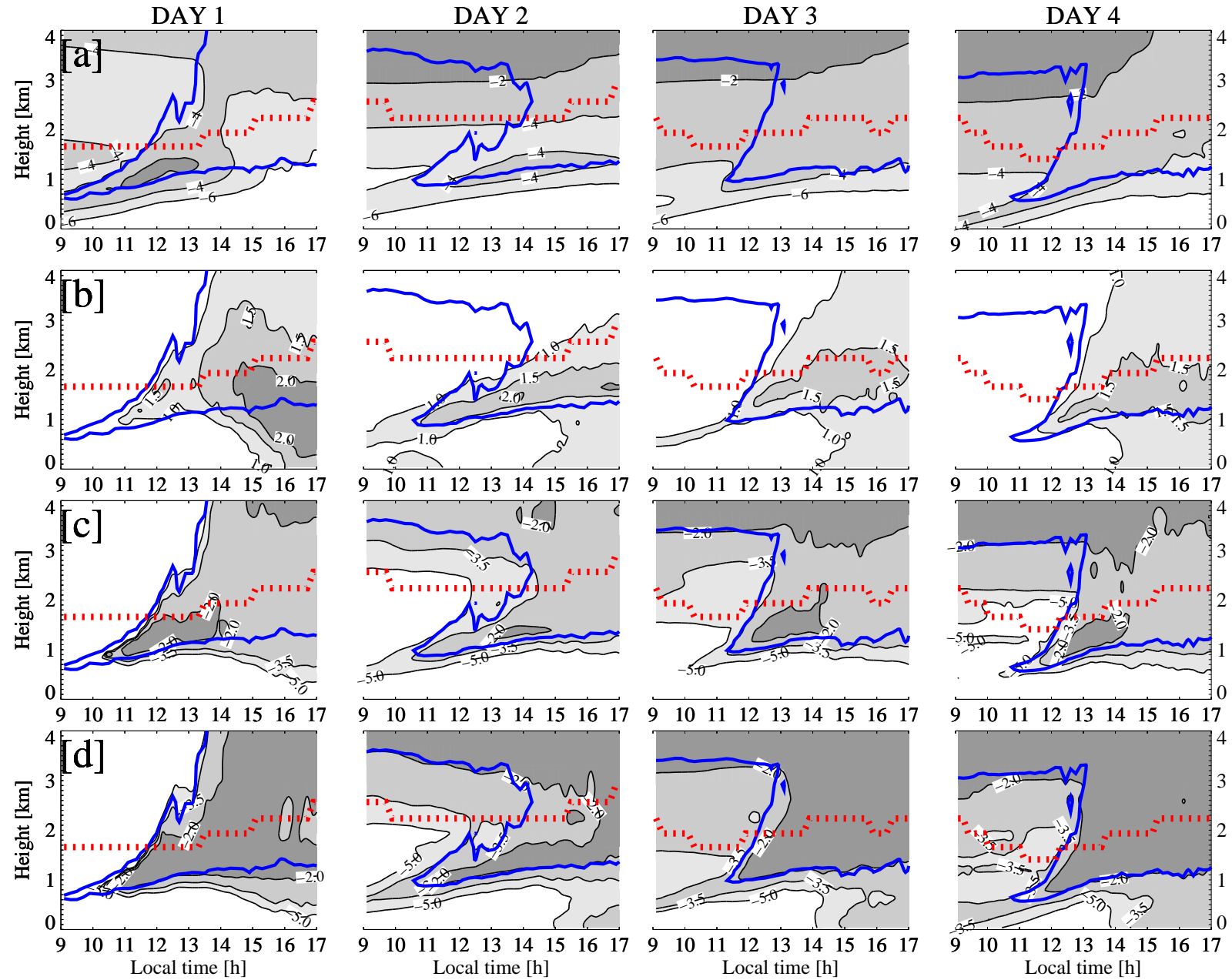
Overview of the diurnal evolution



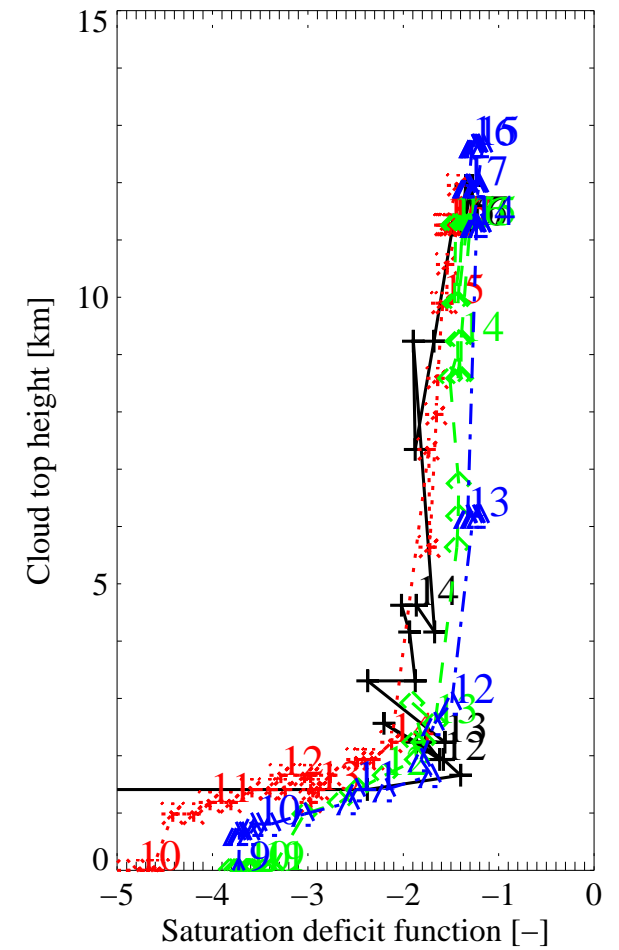
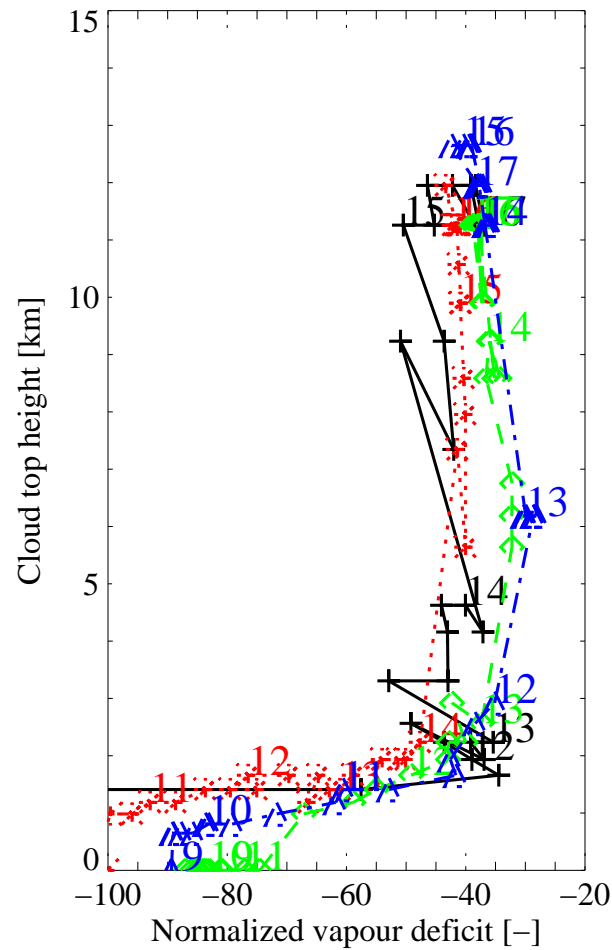
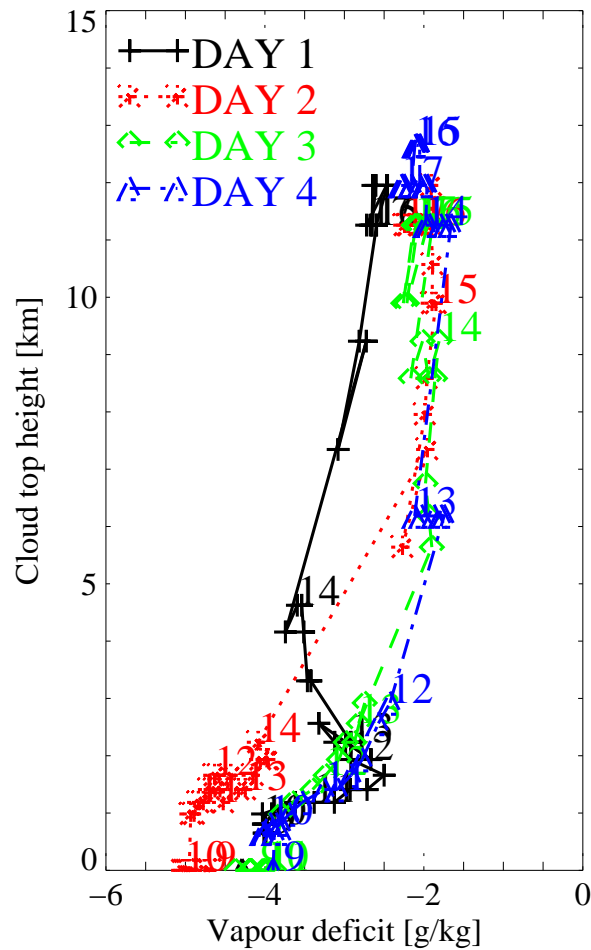
Triggering conditions of shallow convection



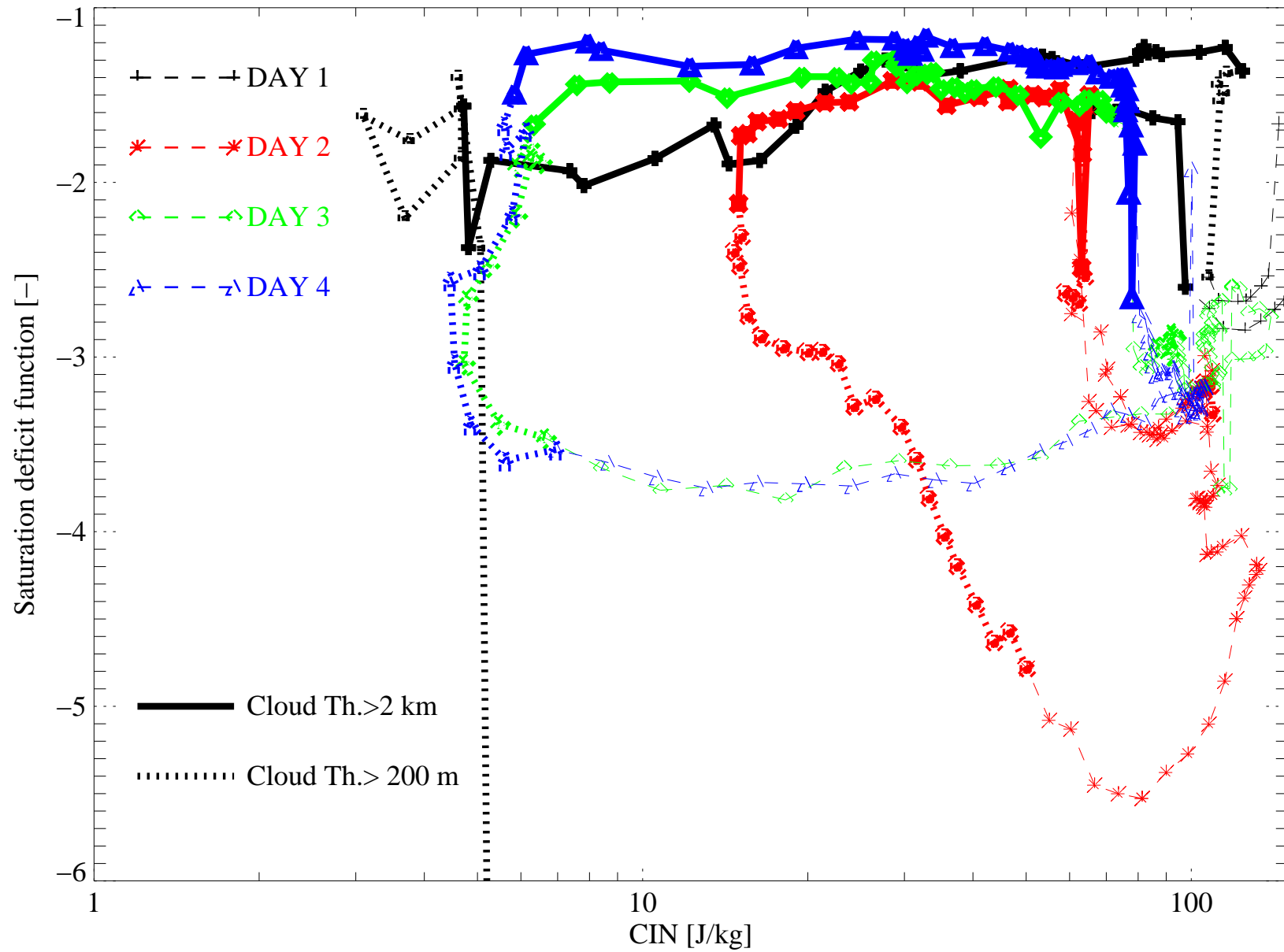
Transition from shallow to deep convection



Transition from shallow to deep convection



Summary



Conclusion

Two key processes in controlling this idealised case:

the **convective inhibition** for the shallow convection → CIN

the **moistening of the cloud base layer** for the deep convection → SDF

❶ DRY CONVECTION

✓ the **CIN decreases** while the SDF remains steady

❷ SHALLOW CONVECTION

✓ the CIN remains steady while the **SDF decreases**

❸ DEEP CONVECTION

✓ the **CIN increases** while the SDF remains steady