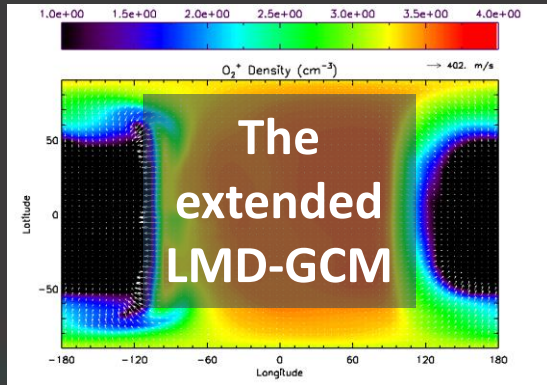




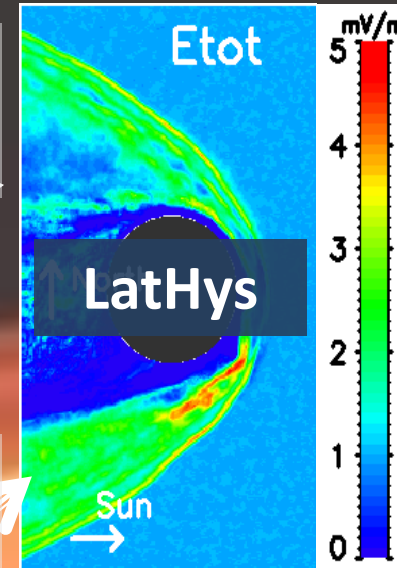
HELIOSARES

Future plans

Theoretical developments: present state

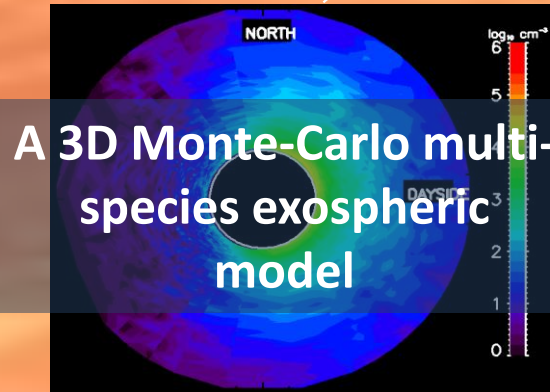


Use to mass-load the solar wind (ionosphere)



Exospheric model contributions

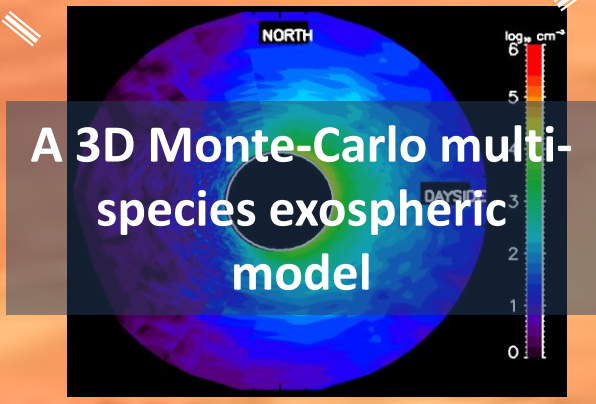
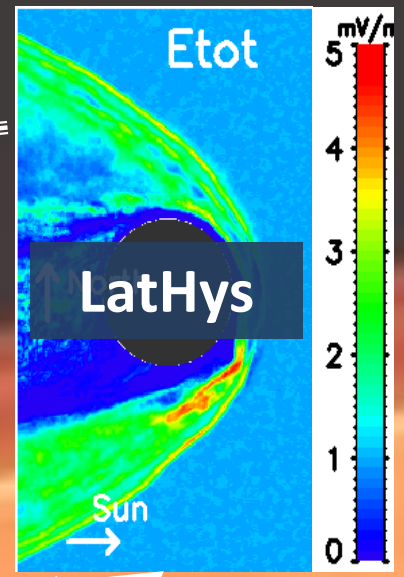
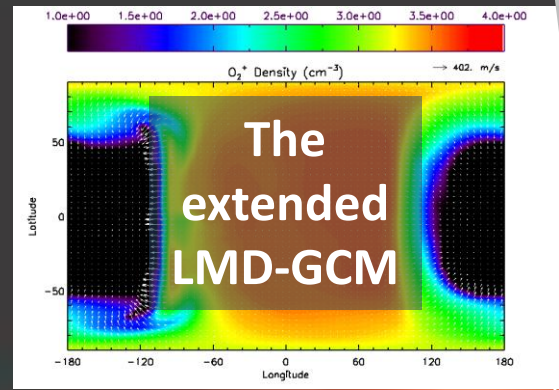
Use to reconstruct the dissociative recombination exosphere and Thermal exospheric components



Use to reconstruct picked up ion precipitation and the sputtered exosphere

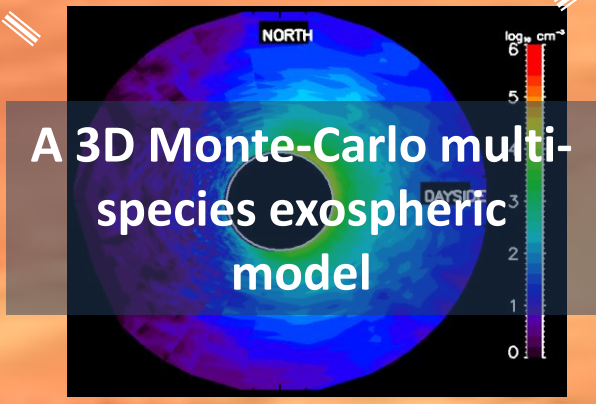
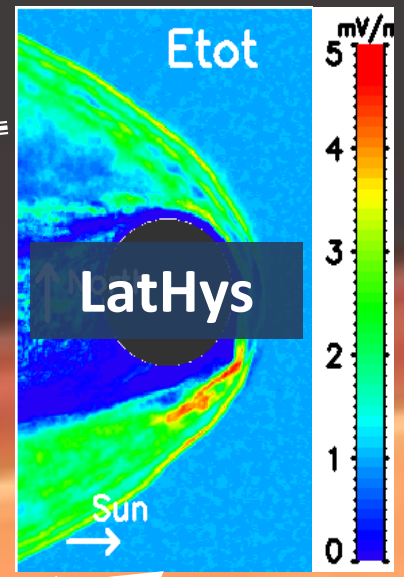
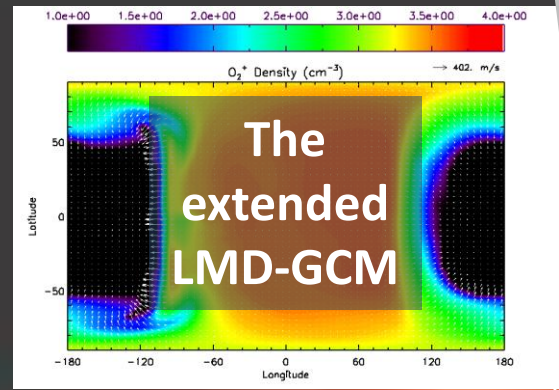
Theoretical developments: to be done

Missing B-field

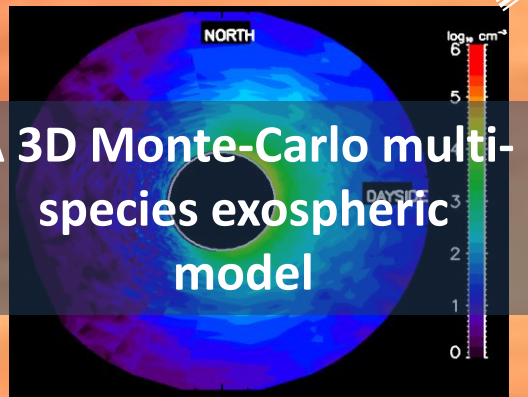
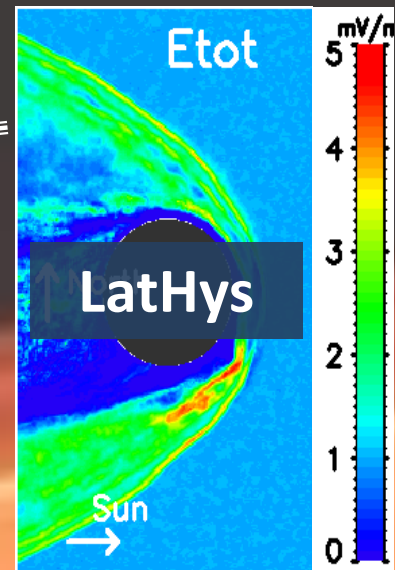
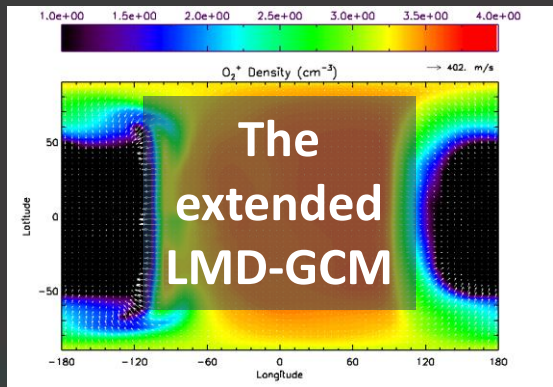


Theoretical developments: to be done

Missing B-field

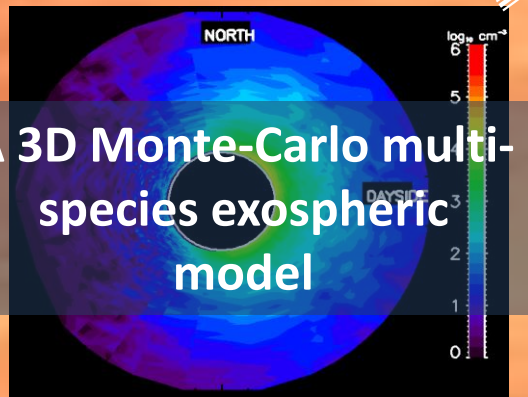
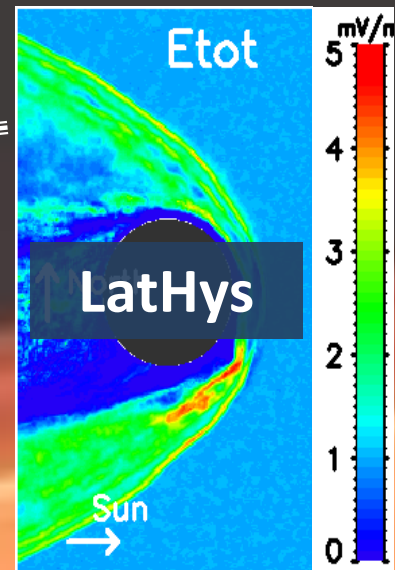
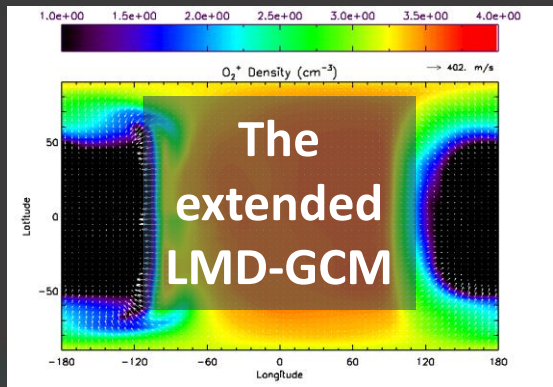


Started to be done in the LMD-GCM...



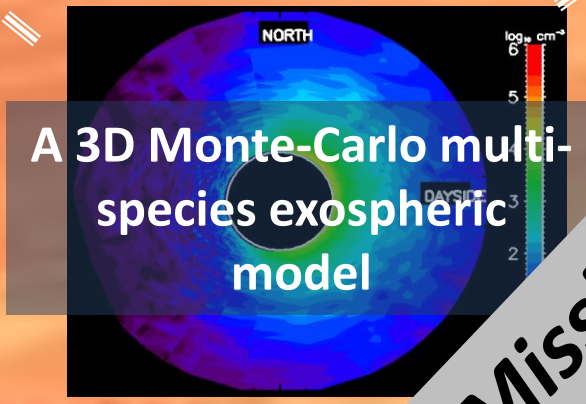
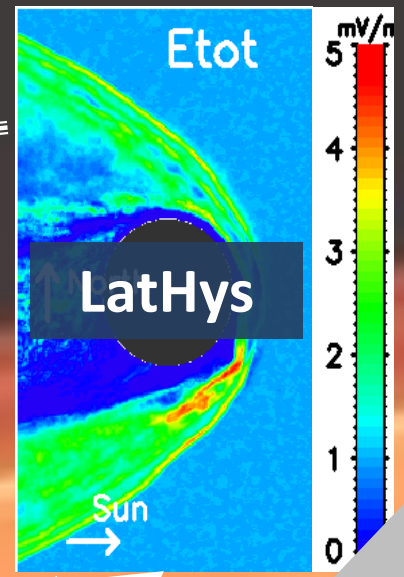
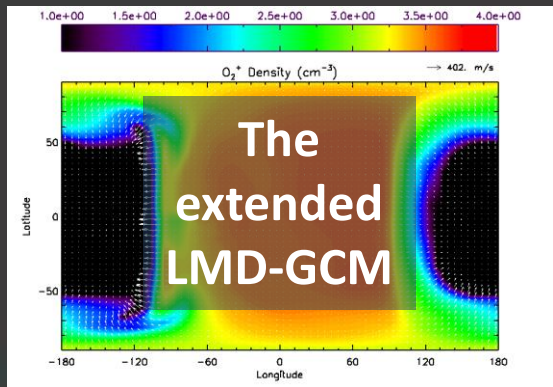
Missing heating term





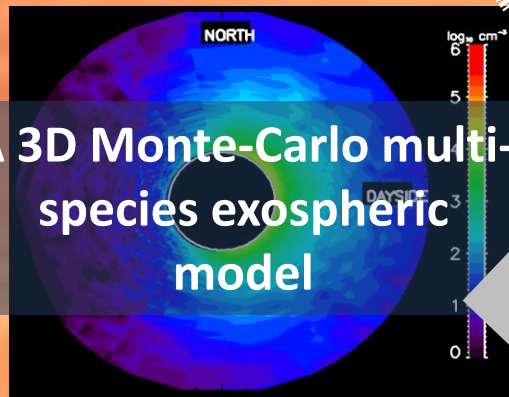
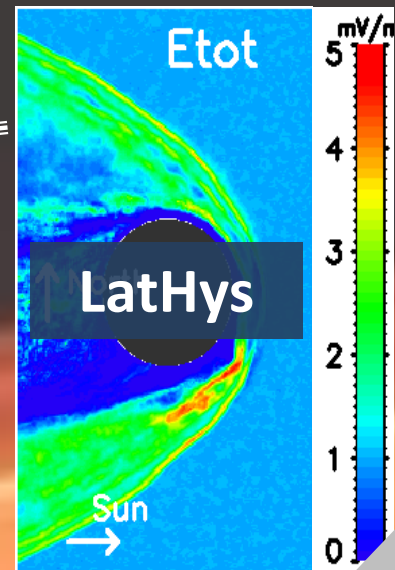
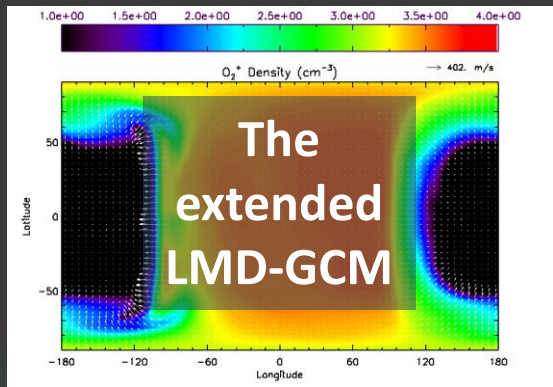
Missing heating term

Discussion with US colleagues...



Missing non-thermal
CO₂, C, CO ...



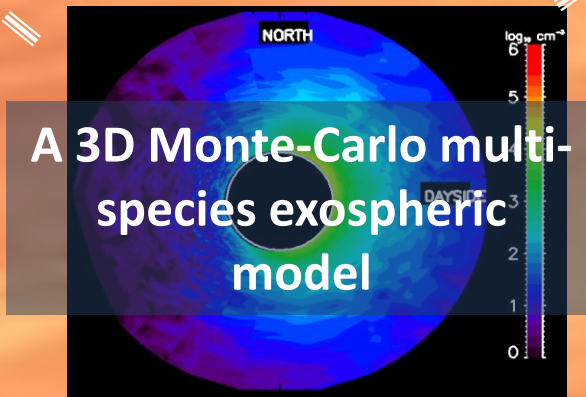
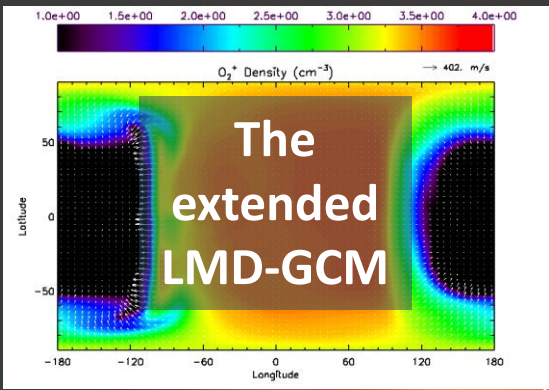
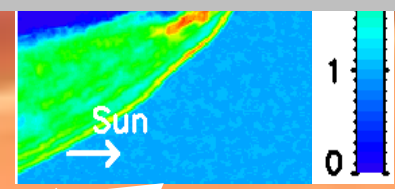


Missing non-thermal CO₂

On-going work (parallelization...)

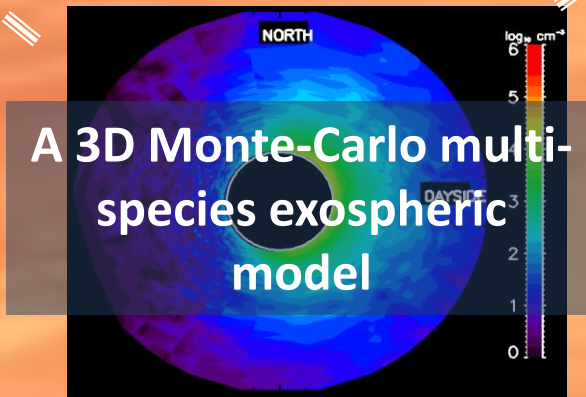
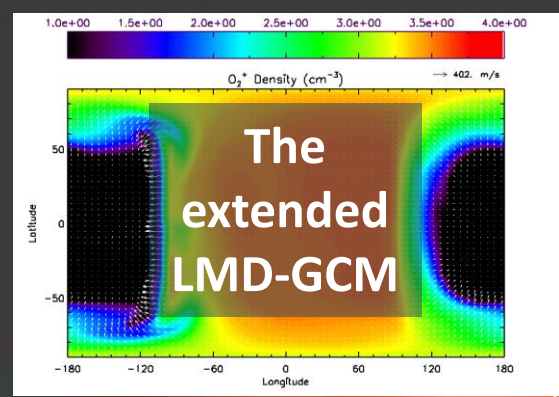
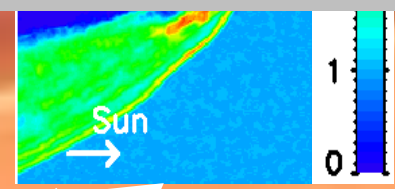


*Time
variability*

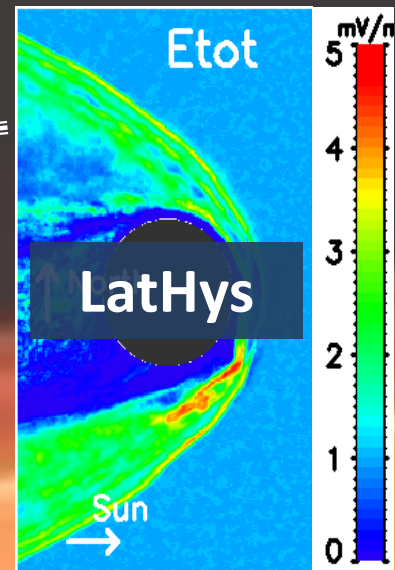
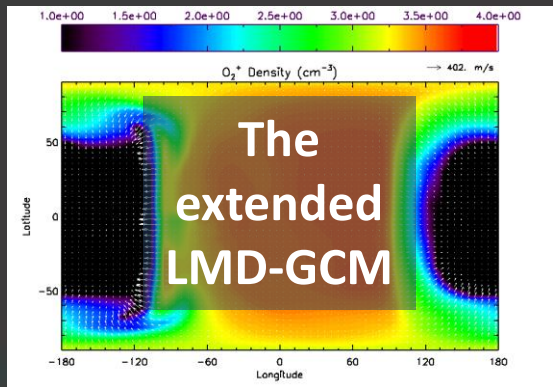




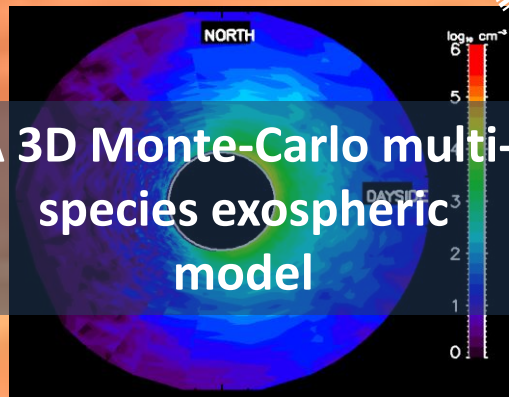
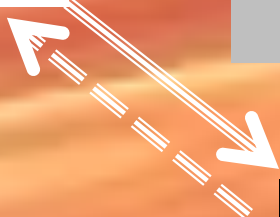
Time variability



In progress...



Early Sun conditions



To be done



And MAVEN

MAVEN HELIOSARES library (on-going)

**MAVEN HELIOSARES simulation tools for instruments
(to be started in the following of IMPEX)**