CIRES

Physics Component	GFSv17_p8	RRFS_v1
PBL	TKE-EDMF	MYNN-EI
Surface	NOAHMP	NOAHMF
Microphysics	Thompson	Thompso
Convection	SAMF deep and shallow	none
Gravity Wave	Unified UGWP	CIRES U
Radiation	RRTMG	RRTMG



# A Process-Level Comparison of Two PBL Schemes in the UFS in a Fog Case Study

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Sfc fluxes averaged over the 5 SCM points. At left: the 2 control runs along with the comparison data from the 3d forcing model (black lines). Right: fluxes from the SCM experiments with modified diffusion and constrained latent heat flux.

Diffusion reduced by 90%

Diffusion reduced by 90% and latent heat flux limited over water

and 2) surface latent heat fluxes. Reducing the diffusion EDMF PBL scheme to produce fog. Modification to the

Given proper forcing, the UFS-based SCM is an effective framework for testing physics changes in an efficient and

improvement of the subgrid mixing parameterization in the