



Aerosol-Deep Convective Coupling in GFDL AM3

Leo Donner

GFDL/NOAA, Princeton University

Alex Belochitski

GFDL/ Brookhaven National Lab

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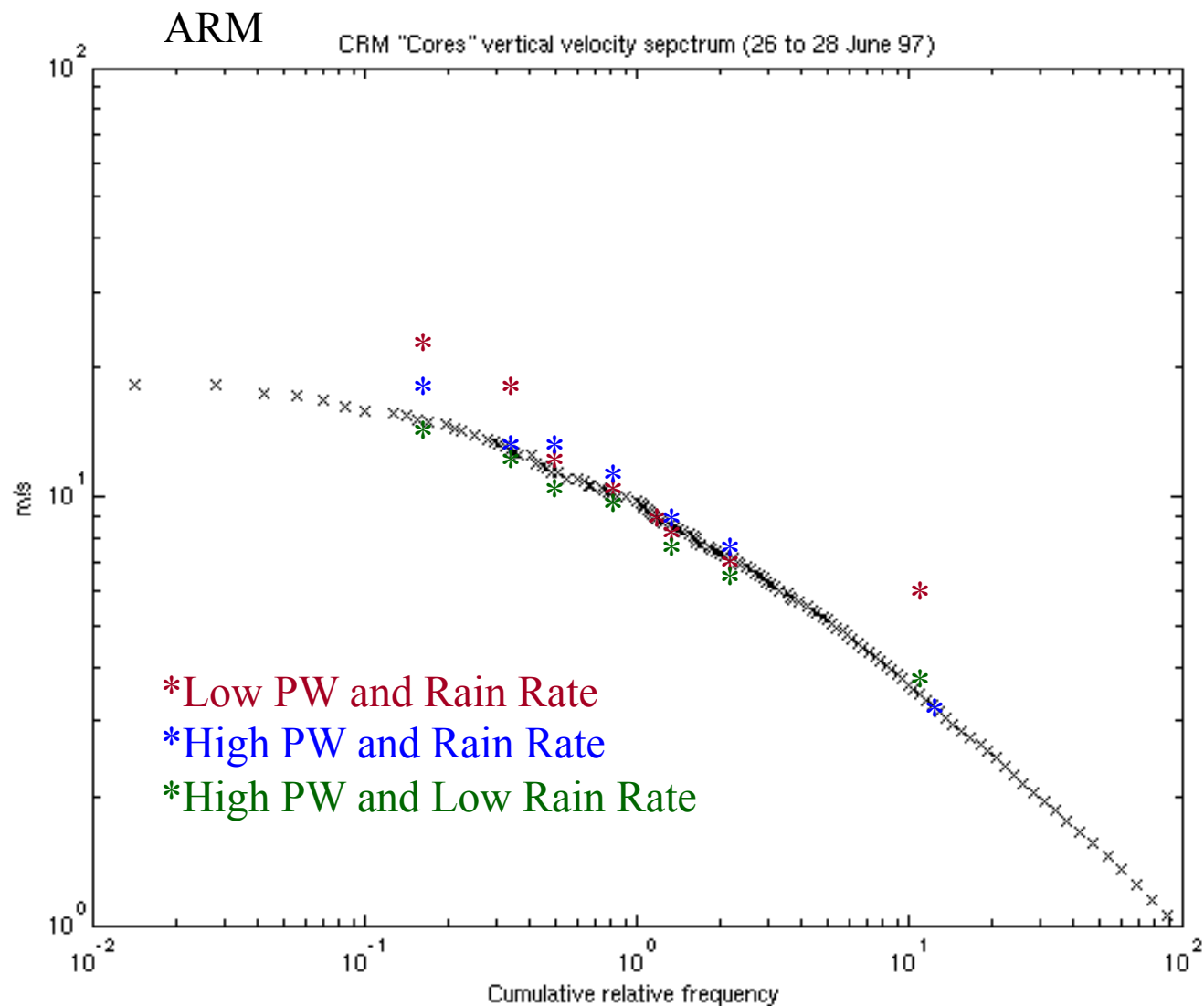




Planned and Ongoing Research

- GFDL AM3 shallow and deep cumulus parameterizations provide PDFs of convective vertical velocities.
- Song and Zhang (2012, *J. Climate*) double-moment microphysics (Morrison-Gettelman, 2008, *J. Climate*) currently being implemented in convective plumes. Includes ice nucleation and activation of liquid droplets.

CRM results provide independent evaluation of entrainment PDF



CRM results from Cris Batstone, CDC; *,*,* from Donner (1993, *JAS*) entrainment PDF