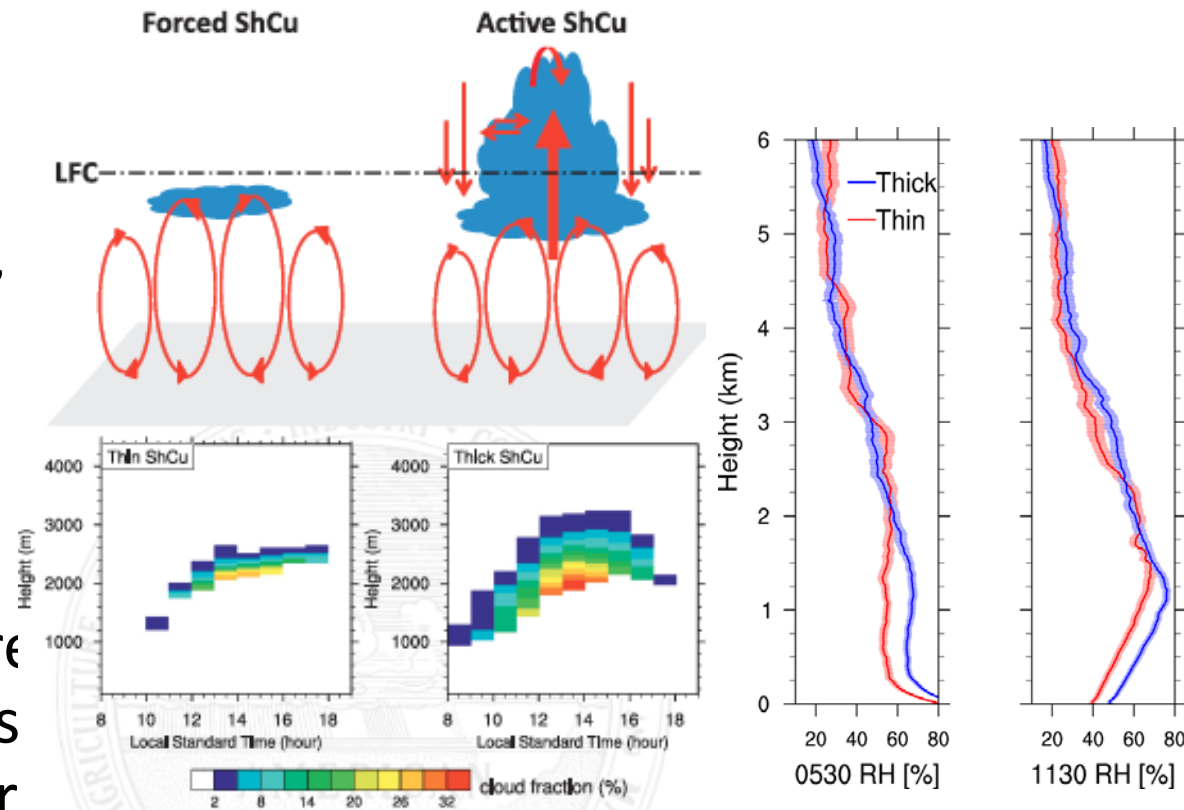


What large-scale controls determine why on some days over land (SGP) there are active cumulus whereas other days do not have only forced cumulus?

Zhang and Klein,
JAS 2013, in press

- Answer: Higher BL
Relative humidity at the start of the day.
→ lower cloud base,
→ greater in-cloud buoyancy
- Answer: Lower bowen ratios and weaker inversions are secondary influences
shear doesn't matter



Based upon composites of SGP observations for 40 days of thin shallow cumulus and 70 days of thick shallow