## Single Column Model Overview

- Initial state (T, q, u, v) from observations, idealization, or model
- Forcing applied to mimic changes in column state from surrounding environment (replaces dycore)
  - 3 typical methods
    - 1. "total" advective forcing
    - horizontal advection + prescribed vertical velocity
    - 3. 2 + nudging to observed profiles
- Physics responds to these changes and further modifies the column state
- End state is combination of forcing + physics



## <u>Pros</u>

- Simple and cheap
- Interpretability
- Approachable

- <u>Cons</u>
- Necessary, but not
- sufficient
- Forcing sensitivity