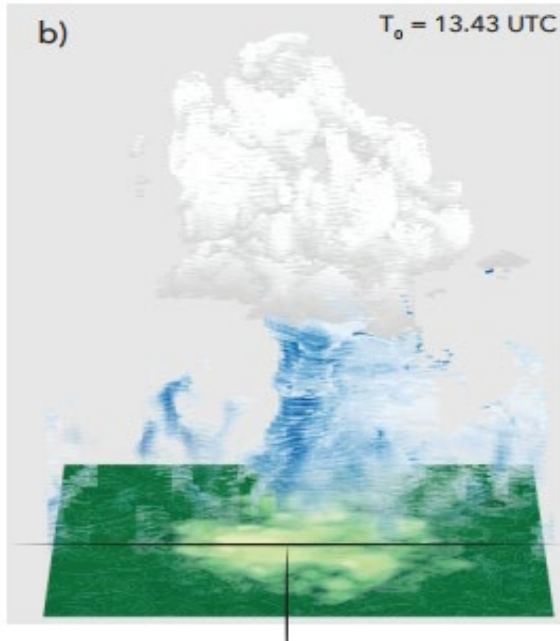
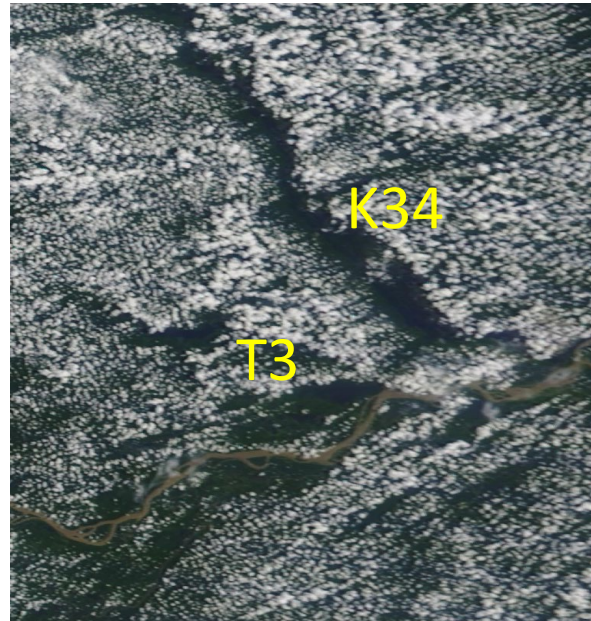


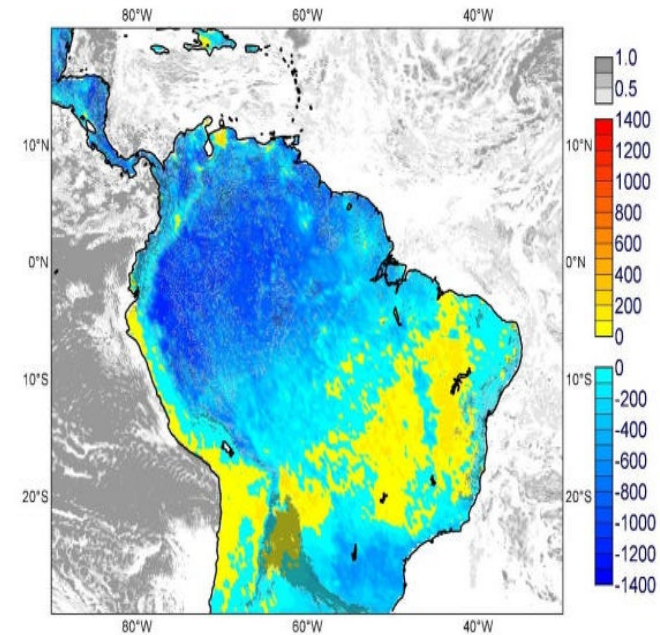
# Interactions between the Amazonian rain forest and cumuli clouds



Large-eddy simulation



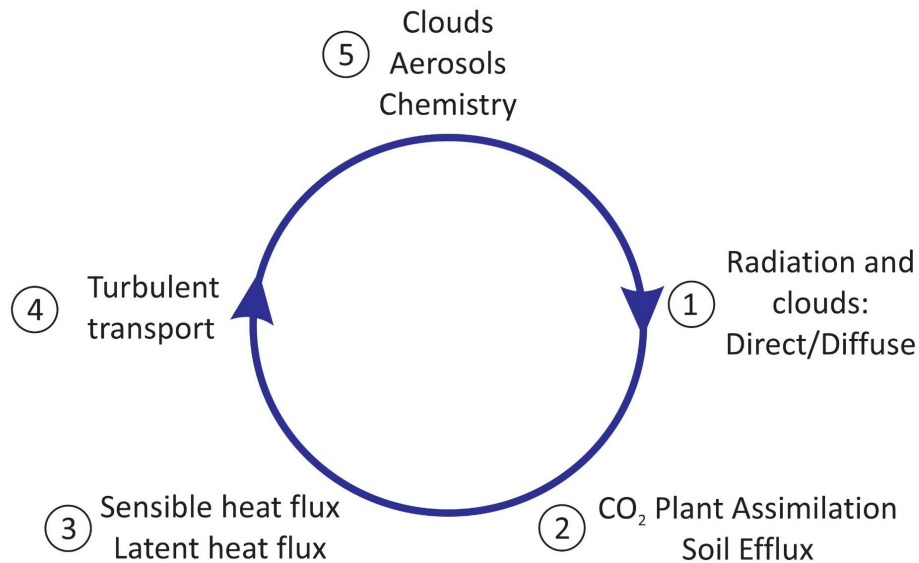
Observations



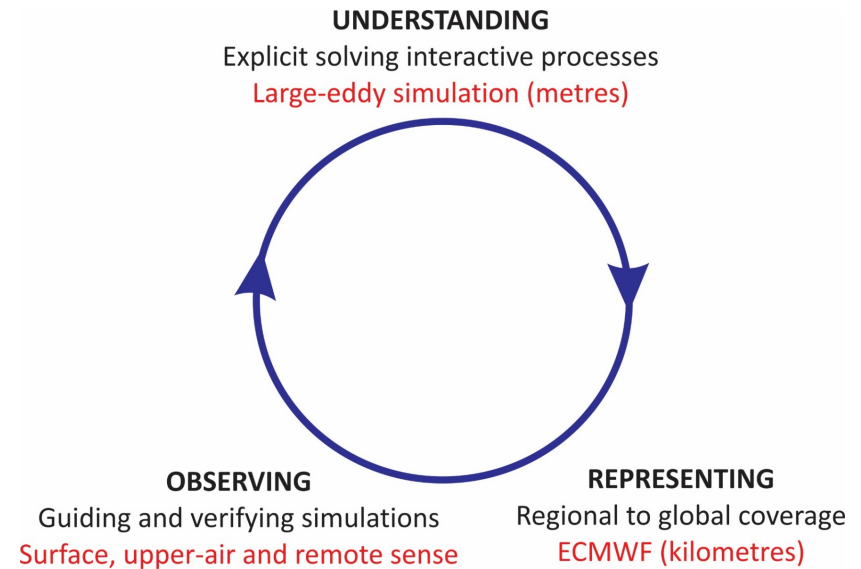
ECMWF  
Integrated Forecasting System

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Wageningen University (The Netherlands)

## Motivation

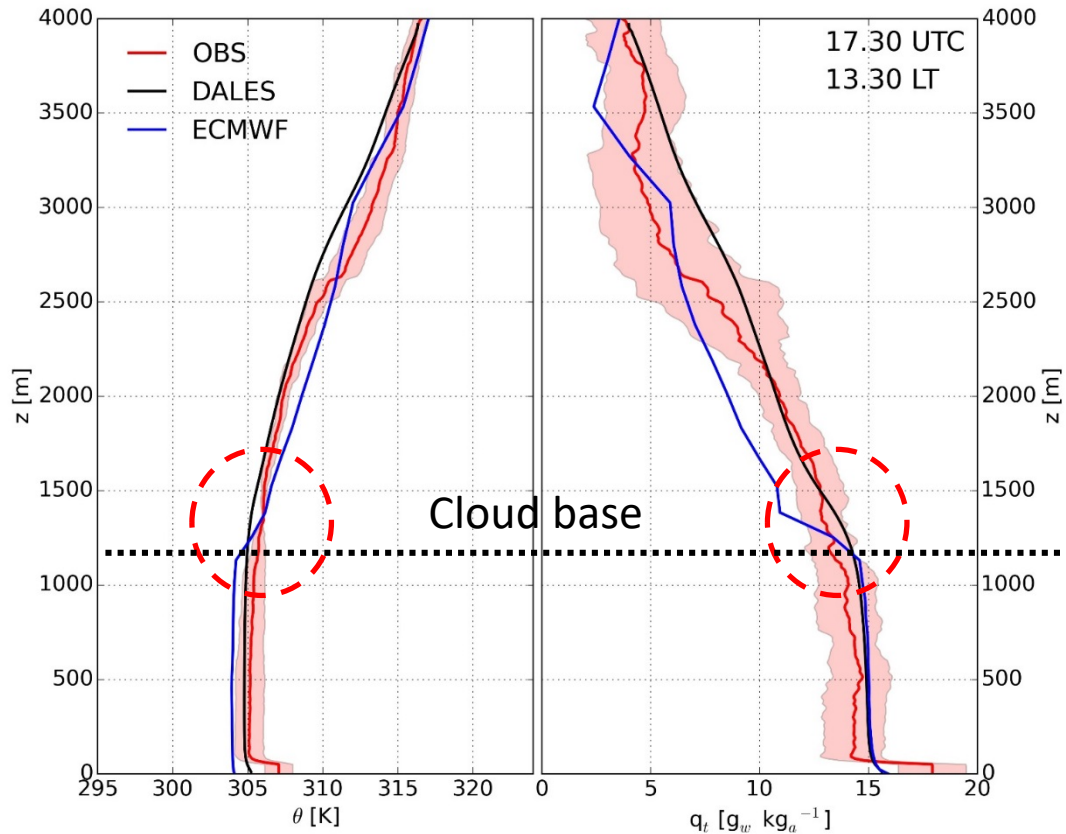


## Strategy and methods



- Role of moisture recycling control by rainforest physiological effects on the **transition shallow to deep convection**
- Designed and comprehensively evaluated a case for the **Amazonia basin during the dry season** (GOAMAZON14/15 campaign)

# Moistening and destabilization above cloud base



- Thermodynamic profiles follow typical vertical structure shallow convection
- Reduce moistening and destabilization above cloud base by ECMWF-IFS
- Dependence on the partitioning of surface turbulent fluxes
- Impact on triggering deep convection

More complete information: Vilà-Guerau de Arellano et al. (JAMES, 2020)