ST2.2: Large-scale atmospheric drivers

**Proposal:** Compact KE activity (3 months):
- communicate SINATRA work on FFIR precursor indices
- contribute to flood risk tool
- define optimal index/lead times

**To discuss:** Since key scientist involved (Adrian Champion) is not joining TENDERLY and SINATRA ST1.3 outputs are ongoing, what is the most profitable use of this resource? Brief update of finalised and ongoing outputs...
SINATRA ST1.3 advances

- Development of framework for analysing links between precursors/events

- Atmospheric rivers/intense moisture transport situations less important for summer flooding (as expected)

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Extreme event?  Atmospheric precursor?

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Champion et al. (2015) JGR

Allan et al. (2015) IJOC
ONGOING: INVESTIGATING LINKS BETWEEN 3HR JJA RAINFALL EXTREMES & GEOPOTENTIAL ANOMALIES IN NW ATLANTIC

NW events

SE events
ONGOING: LOCAL THERMODYNAMIC FIELDS

Td, PMSL (contours)

Evaporation

CWV, \( \rightarrow \) WVT

Composite of 2000 heaviest JJA 3hr rainfall events (SE)
IDEAS FOR TENDERLY WORK

• To discuss...
• KE to communicate finalised SINATRA work to FFC/EA as planned
• 3 months to extend SINATRA work to usable outputs?
  • add to existing PDRAs tasks, e.g. Newcastle PDRA in collaboration with Reading
  • Apply precursor diagnostics:
    • TENDERLY case studies
    • Flood events/impacts rather than intense rainfall?