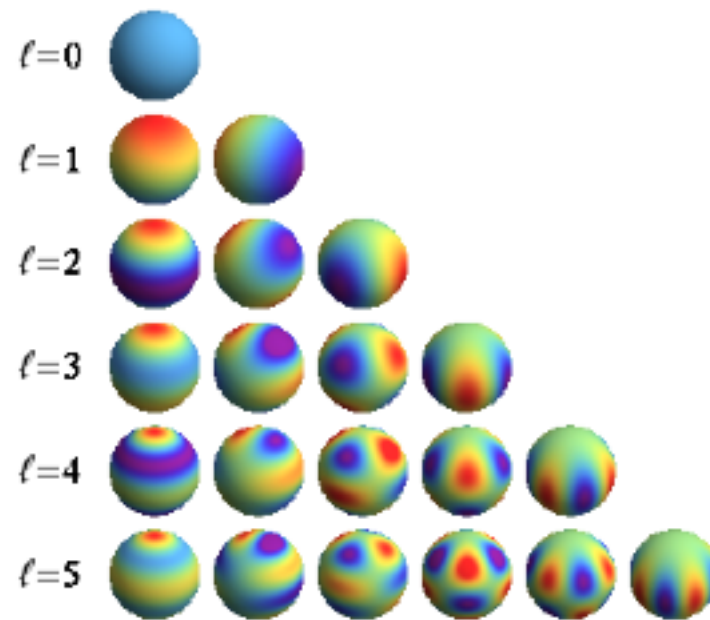
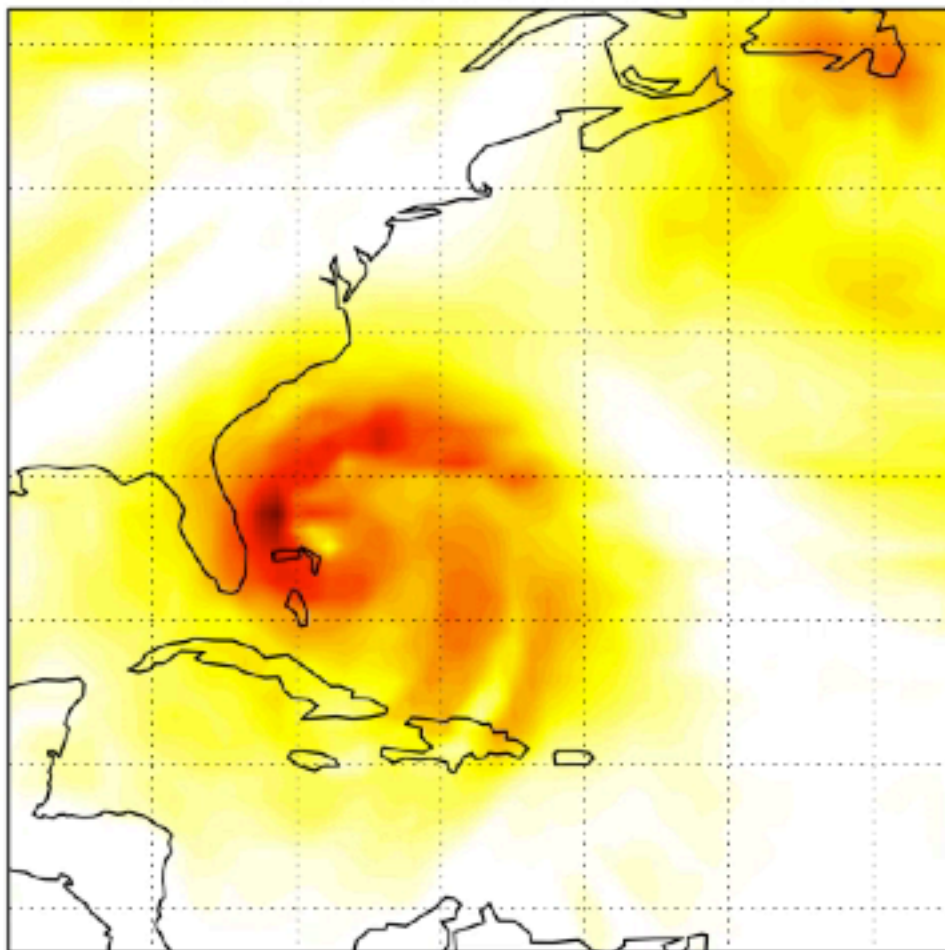


# Why spectral space?



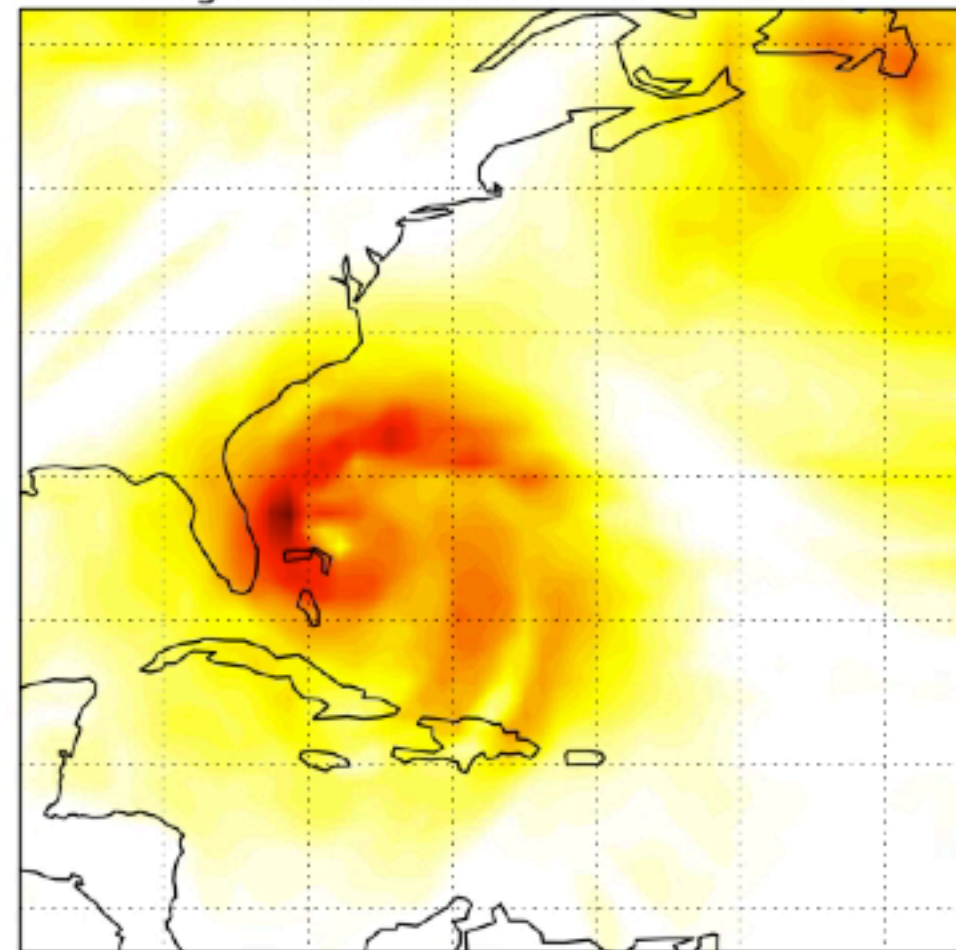
- Spectral models represent fields as a sum of modes representing different lengthscales.
- Can we reduce precision when calculating the small scales?
- This is appealing due to the high inherent uncertainty in small scale dynamics (parametrisation, viscosity, data-assimilation,...).

Double - 52 SBITS: 2012-10-27 00:00



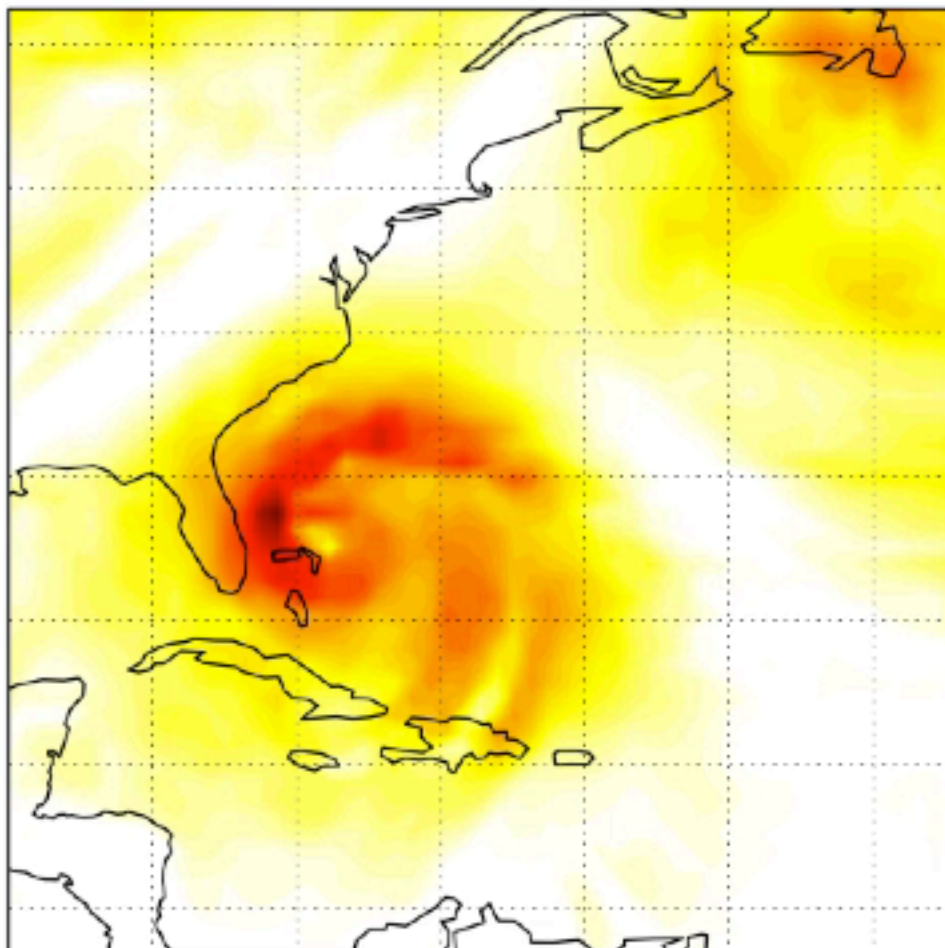
Double  
precision  
(52)

Single - 23 SBITS: 2012-10-27 00:00



Single  
precision  
(23)

8 SBITS: 2012-10-27 00:00



8  
significant  
bits

# Hurricane Sandy

27/10/12 00:00

850hP wind speed

T255L91 ~ 80km

