Improvements to Seasonal Forecasts of Extreme Weather Events
through
The Development of Atlantic Sea Surface Temperature Models

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The availability of <u>Atlantic Sea Surface Temperature Forecasts</u> gives us the potential to improve long-range forecasts of

- **European Windstorms**

- **Flood Events**

- **Subsidence Risk**

and

- **Atlantic Hurricane Activity**

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El Niño

1997/98 El Niño hit the headlines

- **Economic losses ~ £20 million**

- **5000 lives lost**

Impact of this <u>sea temperature anomaly</u>

- **Australian droughts - forest fires**

- **Rain in S America - floods**

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Tropical Pacific Ocean

- more than 9 different prediction models

Extra Tropical Atlantic Ocean

- no prediction models

Benefits of Atlantic Sea Surface Temperature Predictions

- Input to Statistical and Dynamical Weather and Risk Prediction Models

- Potentially Improving Skill and Lead-times of

TSUNAMI Atlantic Tropical Cyclone Predictions	UK & European Windstorm and NAO Events
European (& some US) Temperature Predictions	UK & European Rain & Flood Events and Subsidence Risk

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