



Society Meetings from December 2017

For more information on Society meetings and events, visit our website at www.rmets.org/events/forthcoming-meetings.

NATIONAL MEETINGS

Registration is required for ALL Meetings

Wednesday 6 December 2017, 2.00pm - 6.00pm



Earth, Wind and Fire: The Interaction of Ecosystems on Weather and Climate.

It has been known for decades that ecosystem processes influence the carbon and water cycle, with impacts on climate change prediction. However, there is increasing evidence that these same ecosystem processes can affect the evolution of the weather from days to weeks. Understanding the impacts on the short-time scale can also inform long-time scale response. Here we look to bring together our understanding of how the land interacts with weather and climate.

Grantham Institute
Climate Change and the Environment
An Institute of Imperial College London

 **Remote Participation**
CloudCast from RMets

A Christmas drinks reception will take place afterwards with mince pies and mulled wine.

Imperial College London - Blackett Lecture Theatre 1, Exhibition Road, South Kensington, London SW7 2BW.

Friday 8 December 2017, 10.30am - 3.30pm



Dynamical Coupling Throughout the Whole Terrestrial Atmosphere.

It is becoming increasingly apparent that the lower, middle and upper atmosphere are more strongly coupled than was once thought to be the case and that atmospheric waves play a central role in this coupling. Generated by a variety of sources, these waves carry energy and momentum vertically, and are a principal driver of atmospheric circulation, transporting important chemical species through the atmosphere. In the lower atmosphere global scale waves (tides and planetary waves) are generated; smaller scale waves (such as gravity waves) are generated by weather systems, topographic flow and the polar vortex as well as by processes in the upper atmosphere (via space weather effects). There is growing evidence that space weather can have an effect on surface conditions in the Polar Regions yet the coupling mechanism is not fully understood. This meeting aims to bring together the lower, middle and upper atmosphere communities to explore these coupling effects and their impact on global circulation.



Royal Astronomical Society, Burlington House, Piccadilly, London W1J 0BQ.

Wednesday 17 January 2018, 10.00am - 5.15pm



Minimising Climate Risks.

Climate change continues to divide opinion and confuse the lay person. Its 3 years since the last IPCC Assessment and 2 years since the global agreement in Paris to deal with climate change. Although some progress is being made to address climate change, the international process seems painfully slow and the US, the world's second largest emitter, has indicated its intention to withdraw from the treaty. Meanwhile extreme weather has devastated communities around the world. Just how big is the threat of climate change? Is it all doom and gloom or are there reasons for optimism?

Grantham Institute
Climate Change and the Environment
An Institute of Imperial College London

Institute of Physics
Environmental Physics Group

The Royal Meteorological Society's meeting "Minimising climate change" will take stock of scientific progress since the last IPCC report, review options for avoiding dangerous climate change and what actions key countries are taking. The meeting should appeal to scientists, policymakers and interested non-experts.

For this meeting, there will be a small registration fee which includes refreshments and lunch:

£10 - RMets Members, Grantham Institute & ICL Students and Staff | £15 - Non-Members.

Imperial College London - Lecture Theatre 34, Sir Alexander Fleming Building, Exhibition Road, London SW7 2BW.

Saturday 3 February 2018, 11.00am - 5.00pm



Understanding the Weather of 2017.

This public meeting will review the high-impact weather events of 2017 and their underlying causes. There were a number of high profile weather events during 2017 including: Storm Ophelia that hit the UK and Ireland in October, heatwaves and wildfire in the US and parts of Europe, flooding events around the world and an extremely active hurricane season.

Met Office, Conference Room 1 & 2, FitzRoy Road, Exeter EX1 3PB.

Wednesday 14 February 2018, 2.00pm - 6.00pm



The Indian Monsoon: Atmospheric Dynamics, Aerosol and the Ocean.

The Indian Monsoon occurring between the months of May to September is the major source of rainfall for more than 800 million people. While the Indian Monsoon occurs every year, there are substantial year-to-year variations in its geographic structure, local onset dates, and the amount of rainfall the monsoon brings. It is important to understand the factors that lead to these variations to improve predictive capability for the Indian Monsoon and to enable adaptation planning by governments and communities. A major field campaign was held in India in May-July 2016 and took novel measurements of many components of the monsoon system, with an overall aim of improving our ability to forecast and to understand interactions between aerosols and the monsoon. Speakers at this meeting will discuss recent advances in understanding the Indian Monsoon system and its prediction using numerical models and observations, including new insights provided by the recent field campaign.

University of Leeds, The Woodhouse Suite, University House, Cromer Terrace, Leeds, LS2 9JP.

Wednesday 21 March 2018, 2.00pm - 6.00pm



Space, Satellites and Solutions.

The Paris Agreement highlights the importance of good emissions monitoring. Satellites and space applications offer a solution for accurate and long-term climate change monitoring. This meeting will outline these solutions and then discuss new approaches in this area.

The meeting will review Essential Climate Variables (or ECVs). ECVs were developed by the World Meteorological Organisation to provide an empirical basis for understanding past, current, and possible future climate variability and change.

Leading researchers will give presentations on how we make observations of the Earth's surface and how this can provide information on land cover, fires, human population and infrastructure, and the biomass and biological activity of vegetation.

Satellite applications support emissions monitoring by producing high-resolution observations of the Earth's surface and atmosphere. Our panel will discuss new approaches to earth observation, future technology and highlight upcoming missions.

Imperial College London - Blackett Lecture Theatre 2, Exhibition Road, London SW7 2BW.

Wednesday 11 April 2018, 2.00pm - 6.00pm



Risky Business: Assessing the Risks from Weather and Climate.

Extreme weather events can have a significant impact on human health, property and local economies. The economic costs associated with such events are borne by local and national governments, private insurance, business, and individuals. In order to limit such costs it is necessary to understand what risks exist and provide reliable forecasts of when extreme weather related events may occur. Good communication between the forecasters, emergency planners and first responders is critical to limiting the impact of extreme weather events on local economies. Anticipated climate change may alter the frequency and severity of these risks requiring adaptation and new strategies for assessing and responding to extreme weather events. We present a series of talks on the types of risks that exist, the economic costs associated with extreme weather, ongoing efforts to forecast and communicate such risks to limit their impact and how climate change may require us to adapt our response to extreme weather events.

University of Bristol, Old Council Chamber, Wills Memorial Building, Bristol, BS8 1RJ.

Saturday 21 April 2018, 10.30am - 4.30pm



Institute of Physics
Environmental Physics Group

The Micro Climate of Heathrow.

Heathrow Airport was established during the second world war so meteorological observations have been made there for over seventy years. During that time there has of course been climate change on the global scale and at smaller scales. For example, it is almost certain that the frequency of fog at Heathrow has been reduced as a result of replacing the sewage works at the western end of the airport by terminal five during the 2000s.

The meeting will focus on the recent climate and there will be some emphasis on the meteorological parameters of most significance to aviation. Topics to be covered include temperature, wintry precipitation, wind, fog and sound propagation. A trip to the meteorological instrument enclosure is also planned.

Compass Centre, Heathrow Airport, Nelson Road, Hounslow, Middlesex, TW6 2GW.

Monday 30 April 2018, 1.30pm - 5.00pm



Geophysical Fluid Dynamics with a Twist: In Honour of Prof Raymond Hide.

This meeting is to celebrate the memory of Raymond Hide (CBE ScD FRS) who was President of the Royal Astronomical Society, 1983-1985, and of the Royal Meteorological Society, 1974-76. The meeting will cover fundamental areas of Astronomy, Geophysics, Meteorology and Oceanography, under the broader umbrella of "Geophysical Fluid Dynamics", to which Raymond contributed so greatly.

Professor Hide had a unique approach to these areas, with a knack of drawing powerful inferences from, and connecting to reality, theoretical concepts. We intend to follow, and promote further, this spirit through the meeting with the help of speakers who have been inspired by Raymond's life and work: Prof Chris Hughes (University of Liverpool), Prof Andrew Jackson (ETH Zurich), Prof John Marshall (MIT), Prof Tim Palmer (Oxford University) and Prof Peter Read (Oxford University).

Interested students may apply for financial assistance with travelling expenses to attend.

Royal Astronomical Society, Burlington House, Piccadilly, London, W1J 0BQ.



Wednesday 16 May 2018, 1.00pm - 7.00pm



Engineering Meteorology and The Royal Meteorological Society's AGM 2018.

2018 is the Year of Engineering and the RMetS is joining forces with other sectors to look at how engineering continues support the advancement in the science and application of meteorology. The meeting will focus on engineering solutions that have seen developments in Earth Observations (EO) and the applications of EO in providing solutions to engineering problems in sectors such as energy, water, transport or construction.

The meeting also provides an opportunity to showcase prototypes of low cost weather instruments from SWITCH (Surface Weather Instrument Technology Challenge) www.rmets.org/switch and attendees at the event will get an opportunity to vote for their favourite instrument.

The Society's AGM will take place during the afternoon and the Society's annual Awards and Prizes will be presented. The event will be followed with drink's reception.

Institution of Mechanical Engineers (IMechE), One Birdcage Walk, London, SW1H 9JJ.

EAST ANGLIA LOCAL CENTRE MEETINGS

Tuesday 23 January 2018, 6.30pm - 8.00pm

Storm Chasing in Tornado Alley Part 1 – The Set-Up.

Speaker: Chris Bell, Weatherquest and University of Anglia.

Tornado Alley, in the Great Plains of the United States of America, is the scene of some of the most violent thunderstorms in the world, called "Supercells". Since the release of the movie "Twister" in the mid-1990s storm chasing has grown in popularity. This talk will take the form of a "How To" guide if you were interested in storm chasing. It will also explain what makes Tornado Alley such a unique place for producing and viewing some of world's largest tornadoes. Part 2 will follow in February, with a talk highlighting recent storm chase trips to Tornado Alley by Dan Holley and Adam Dury.

Julian Study Centre Room 3.02, University of East Anglia, Norwich, NR4 7TJ.

Tuesday 23 February 2018, 6.30pm - 8.00pm

Storm Chasing in Tornado Alley Part 2 – The Chase.

Speaker: Chris Bell, Weatherquest and University of Anglia.

From the UK to the Great Plains, experience the thrill of the chase and see footage from the past 2 years storm chasing. See the picturesque updrafts of supercells forming, to the moment they drop a tornado right in front of your eyes. Also, magnificent lightning displays during the evenings that could turn into a scarier experience than you thought.

Julian Study Centre Room 3.02, University of East Anglia, Norwich, NR4 7TJ.

Tuesday 24 April 2018, 6.30pm - 8.00pm

Atmosphere, Ocean and Ice Interactions in West Antarctica.

Speaker: Richard Jones, Weatherquest and University of East Anglia.

Complex atmosphere-ocean-ice interactions within the Amundsen Sea Embayment mean that glaciers in the region are amongst the most rapidly retreating in Antarctica. Together they contribute ~10% to current annual global sea level rise. In 2014 I launched a unique set of 38 radiosondes during a rare visit to the region. The data from the radiosondes are combined with near-surface observations from automatic weather stations and research vessels to validate atmospheric models in the region. We also use data from ice cores collected on Pine Island Glacier to examine trends in precipitation in recent decades, an important component of the glaciers mass balance.

Thomas Paine Study Centre Lecture, University of East Anglia, Norwich, NR4 7TJ.

NORTH EAST LOCAL CENTRE MEETINGS

Friday 8 December 2017, 5.15pm - 7.00pm

Implications of Variation in Weather on Business Decisions Relating to Gas Distribution.

Speaker: Dr Shirley Coleman, University of Newcastle Upon Tyne.

Domestic gas demand is highly related to weather. In particular, within a wide range of temperatures, gas demand increases with every degree drop in temperature. Good demand prediction is vital for sound gas distribution management. If less gas is used than predicted then excess gas has to be stored, if more gas is needed then it has to be bought at the current spot price which is usually expensive. Gas is supplied over a wide geographical area but temperature is currently only measured at specific points often many miles apart. Temperature measurements are expensive to collect. This talk addresses the question: how variable is the temperature over a region and is more granular measurement a justifiable business expense?

Williamson Library, St. Chad's College, North Bailey, Durham DH1 3RQ.

NORTH WEST LOCAL CENTRE MEETINGS

Tuesday 5 December 2017, 6.00pm - 7.00pm

The Detection of Lightning from Space.

Speaker: Dr. Lorenzo Labrador, Met Office.

Earth orbit offers a unique vantage point from which to study and monitor the phenomenon of lightning. In this talk, Dr. Labrador will give a historical perspective on the study and monitoring of lightning from space, as well as a glimpse into future lightning detection capabilities from orbit.

Room C0.14, John Dalton Building, Oxford Road, Manchester Metropolitan University, Manchester M15 6BH.

Monday 5 February 2018, 6.00pm - 7.00pm

New Observations of the North Atlantic Jet Stream.

Speaker: Dr Ben Harvey, University of Reading.

This talk will review the basics of why jet streams exist and how they impact our weather in the UK. New observations from a recent international field campaign (www.nawdex.org) will be presented, along with a discussion of current research topics being addressed by these new observations.

Room C0.14, John Dalton Building, Oxford Road, Manchester Metropolitan University, Manchester M15 6BH.

Tuesday 24 April 2018, 6.00pm - 7.00pm

Filming and Photographing Cumbria in all Weathers and Seasons.

Speaker: Terry Abraham, BBC film maker and photographer.

We welcome Terry Abraham, director of the BBC 'Life Of A Mountain' film trilogy, to talk about his experiences of filming in the wild and rugged beauty of the Lake District fells throughout the seasons, and the challenging weather conditions he faced.

Room C0.14, John Dalton Building, Oxford Road, Manchester Metropolitan University, Manchester M15 6BH.

Tuesday 5 June 2018, 6.00pm - 7.00pm

Lancaster's Critical Infrastructure Collapse Following Intense Rainfall on 4/5 December 2015.

Speaker: Dr Emma Ferranti, University of Birmingham.

This talk will describe the impact of heavy rainfall that caused the flooding of Lancaster that brought transport to a halt, cut off mains power for 2 days, and left communication services paralysed. Implications for resilience in populous urban areas when faced with more extreme weather events will be discussed.

Room C0.14, John Dalton Building, Oxford Road, Manchester Metropolitan University, Manchester M15 6BH.

SCOTTISH LOCAL CENTRE MEETINGS

Tuesday 12 December 2017 6.00pm - 7.30pm

Meteorological Timelapse Photography.

Speaker: Stephen Burt FRMetS, University of Reading.

Good meteorological imagery is a subtle mix of science and art, experience and technology. The talk will outline the most important aspects, illustrated throughout with a varied selection of both still photography and time-lapse video.

The Institute of Geography, University of Edinburgh, Drummond Street, Edinburgh, EH8 9XP.

Friday 19 January 2018, 6.00pm - 7.30pm

Post-Graduate Student Talks.

Contrasting Northern Hemisphere Impacts of Regional Arctic Sea-Ice Loss.

Speaker: Christine McKenna, British Antarctic Survey.

Most climate models agree that Arctic sea-ice loss will continue throughout the 21st century in response to rising greenhouse gases. This has led to much research into the impacts of future sea-ice loss on climate in mid-latitudes. However, the spatial pattern of future sea-ice loss is uncertain and, as such, understanding the impacts of different regions of sea-ice loss is important.

In this study, we conduct climate model simulations with surface warming (representing future sea-ice retreat) imposed in either the Atlantic or Pacific sectors of the Arctic. In agreement with previous work, we find different impacts on the stratospheric polar vortex in winter. However, the tropospheric response resembles a negative Arctic Oscillation (AO) in both cases, implying limited stratospheric influence on the troposphere. Still, there are different surface impacts, with the negative AO only causing cooling across Northern Europe in the Pacific run. In the Atlantic run, the imposed surface warming is closer to northern Europe and balances dynamical cooling through warm advection.

These results may be useful for interpreting the different responses to future sea-ice loss predicted by different climate models. For a climate model predicting sea-ice loss that is more heavily weighted towards the Pacific (Atlantic) sector, we would expect relatively more (less) northern European winter cooling.

Relating El Nino-Southern Oscillation and Global Warming Shifts in Tropical Precipitation.

Speaker: Alexander Todd, University of Exeter.

Despite recent advances in climate modelling, uncertainty remains in future projections of tropical precipitation change under global warming. Previous work has presented a simplified method, based on the weak temperature gradient (WTG) hypothesis, for predicting tropical precipitation shifts using changes in surface air temperature and relative humidity (RH). We examine El Nino-Southern Oscillation (ENSO) precipitation shifts to assess the prediction method performance. The WTG assumption is justified using observations ($r = 0.66$), and an ensemble of coupled climate model simulations ($r=0.51$ to $r = 0.82$). Using inter-model variability, a significant relationship is demonstrated between method performance over land for present day ENSO and projected global warming. Hence, the prediction method presents a plausible mechanism linking future changes in precipitation, temperature and RH. These results support our understanding of the sources of uncertainty in tropical precipitation change under global warming.

The Institute of Geography, University of Edinburgh, Drummond Street, Edinburgh EH8 9XP.

Wednesday 7 February 2018, 7.00pm - 9.00pm

Satellites and Weather Forecasting.

Speaker: Chris Nankervis.

Inverness College UHI, Inverness Campus, IV2 5NA.

Tuesday 20 February 2018, 6.00pm - 7.30pm

The Decline of Sea Bird Populations on The Isle Of May.

Speaker: Prof Sarah Wanless FRSE, formerly CEH Edinburgh.

The Institute of Geography, University of Edinburgh, Drummond Street, Edinburgh EH8 9XP.

Date TBC March 2018, 6.00pm - 7.30pm

The Cairngorm Weather Station.

Speaker: Bill MacPherson.

Inverness College UHI, Inverness Campus, IV2 5NA.

Tuesday 20 March 2018, 6.00pm - 7.30pm

Turbulence Ahead! How Climate Change Affects Air Travel.

Speaker: Dr Paul Williams FRMetS, University of Reading.

The climate is changing, not just where we live at ground level, but also where we fly at 35,000 feet. Everybody knows that air travel contributes to climate change through its emissions. However, scientists have only recently become aware that climate change could have significant consequences for air travel. Rising sea levels and storm surges threaten coastal airports. Warmer air at ground level reduces the lift force and makes it more difficult for planes to take-off. More extreme weather may cause flight disruptions and delays. Clear-air turbulence is expected to become up to 40% stronger and twice as common. Transatlantic flights may take significantly longer because of changes to the jet stream, adding millions of dollars to airline fuel costs.

The Institute of Geography, University of Edinburgh, Drummond Street, Edinburgh EH8 9XP.

SOUTH EAST LOCAL CENTRE MEETINGS

Wednesday 13 December 2017, 7.00pm - 8.30pm

Space Climate

Speaker: Prof Matthew Owens, University of Reading.

Space weather, variability in the near-Earth space environment over minutes to days, can adversely affect space - and ground-based technologies and poses health risks to humans in space and on high-altitude flights. To predict how the space weather may vary in the future, we first need to understand how it has varied in the past. Reconstructing "space climate" further back in time necessitates relying on increasingly indirect proxies, from direct spacecraft measurements (~60 years), to geomagnetic measurements (~150 years), sunspot observations (400 years) and, finally, cosmogenic isotope records in ice sheets and tree trunks (~10,000 years). I'll review what these are, what exactly they tell us and how much they can be trusted. I'll also, possibly imprudently, speculate about the most likely scenario for solar activity over the coming decades.

University of Reading, Sutcliffe Lecture Theatre (GU01), Dept of Meteorology, Earley Gate, Reading, RG6 7BE.

Wednesday 10 January 2018, 7.00pm - 8.30pm

How Cool are Trees? The Impact of Forests on the Climate - From Local to Global Scales.

Speaker: Dr Cat Scott, University of Leeds.

Forests cover one third of the Earth's land area. They store huge quantities of carbon, influence rainfall and alter the colour (and therefore reflectivity) of the land. In addition to taking carbon dioxide out of the air and producing oxygen, trees emit other gases into the air that can affect the climate in complex ways. This talk will explore the latest research on the ways that forests affect the climate. At the smaller scale, we'll also consider how much the tree in your back garden could be doing to improve local air quality.

University of Reading, Sutcliffe Lecture Theatre (GU01), Dept of Meteorology, Earley Gate, Reading, RG6 7BE.

Wednesday 7 March 2018, 7.00pm - 8.30pm

Gardens in a Changing Climate.

Speaker: Dr Eleanor Webster, Royal Horticultural Society.

Gardens can come in many forms, from a single container to a large domestic garden. They are multifunctional spaces, important for providing important ecosystem services, such as mitigating urban flooding, urban cooling, pollutant capture and carbon sequestration.

In the last decade the climate has undergone dramatic change, including more frequent and intense rainfall events in combination with rising temperatures. Despite this, there is a relentless trend to replace green space with impermeable surfaces, removing a large proportion of the terrestrial aboveground carbon store.

With populations rising and housing development set to continue into the future, the role of gardens in delivering the health and environmental ecosystem services formerly fulfilled by the natural environment will become increasingly important. With over half of UK adults engaged in gardening there is great potential for this group to help maintain biodiversity, make a major contribution to reducing carbon dioxide emissions and prepare for the growing impacts of climate change.

University of Reading, Sutcliffe Lecture Theatre (GU01), Dept of Meteorology, Earley Gate, Reading, RG6 7BE.

SOUTH WEST LOCAL CENTRE MEETINGS

Thursday 12 July 2018, 7.30pm - 8.30pm

Turbulence Ahead! How Climate Change Affects Air Travel.

Speaker: Dr Paul Williams FRMetS, University of Reading.

The climate is changing, not just where we live at ground level, but also where we fly at 35,000 feet. Everybody knows that air travel contributes to climate change through its emissions. However, scientists have only recently become aware that climate change could have significant consequences for air travel. Rising sea levels and storm surges threaten coastal airports. Warmer air at ground level reduces the lift force and makes it more difficult for planes to take-off. More extreme weather may cause flight disruptions and delays. Clear-air turbulence is expected to become up to 40% stronger and twice as common. Transatlantic flights may take significantly longer because of changes to the jet stream, adding millions of dollars to airline fuel costs.

Bath Royal Literary and Scientific Institution (BRLSI), 16 - 18 Queen Street, Bath BA1 2HN.

WELSH LOCAL CENTRE MEETINGS

Tuesday 6 February 2018, 6.30pm - 8.00pm

Turbulence Ahead! How Climate Change Affects Air Travel.

Speaker: Dr Paul Williams FRMetS, University of Reading.

The climate is changing, not just where we live at ground level, but also where we fly at 35,000 feet. Everybody knows that air travel contributes to climate change through its emissions. However, scientists have only recently become aware that climate change could have significant consequences for air travel. Rising sea levels and storm surges threaten coastal airports. Warmer air at ground level reduces the lift force and makes it more difficult for planes to take-off. More extreme weather may cause flight disruptions and delays. Clear-air turbulence is expected to become up to 40% stronger and twice as common. Transatlantic flights may take significantly longer because of changes to the jet stream, adding millions of dollars to airline fuel costs.

Cardiff University, School of Engineering, Faculty Lecture Theatre, Trevithick Building, Cardiff , CF24 3AA.

Wednesday 14 March 2018, 7.00pm – 8.30pm

How to Extract Useful Energy from our Oceans - The Science, the Technology and the Industry.

Speaker: Prof Ian Masters, Swansea University.

This talk is an introduction to wave and tidal renewable energy. It covers the science of waves and tides, gives an estimate of the potential size of the resource and discusses the type of technology needed to turn this natural movement of water into useful energy. Wales is used as a case study and several of the companies that are present in Wales are described. Overall, this should provide a broad understanding of the technology that has been developed to make use of this opportunity.

Faculty Swansea University, Room TBC, Singleton Park Campus, Sketty, Swansea, SA2 8PP.

WEST MIDLANDS LOCAL CENTRE MEETINGS

Thursday 8 February 2018, 4.00pm

Turbulence Ahead! How Climate Change Affects Air Travel.

Speaker: Dr Paul Williams FRMetS, University of Reading.

The climate is changing, not just where we live at ground level, but also where we fly at 35,000 feet. Everybody knows that air travel contributes to climate change through its emissions. However, scientists have only recently become aware that climate change could have significant consequences for air travel. Rising sea levels and storm surges threaten coastal airports. Warmer air at ground level reduces the lift force and makes it more difficult for planes to take-off. More extreme weather may cause flight disruptions and delays. Clear-air turbulence is expected to become up to 40% stronger and twice as common. Transatlantic flights may take significantly longer because of changes to the jet stream, adding millions of dollars to airline fuel costs.

University of Birmingham, Room 125, Geography Department, B15 2TT.

Thursday 8 February 2018, 4.00pm

Can Less Precise Models Yield more Accurate Forecasts of Weather and Climate?

Speaker: Dr Tobias Thornes, Atmospheric Oceanic and Planetary Physics, University of Oxford.

Given that the climate is changing and extreme weather is becoming increasingly prevalent, the need for accurate forecasts of weather and climate is more pressing than ever. One of the key constraints on the quality of forecasts is the resolution and complexity of the numerical models used to inform them, which are themselves constrained by how much computer power is available and affordable to forecast centres. But much energy may be wasted by carrying out all calculations in standard 64-bit 'double-precision'. In this talk, a new method to increase the efficiency of forecasts by removing superfluous precision will be described. Results will be presented that provide evidence in favour of the hypothesis that quantities are less accurately known and therefore do not need to be represented as precisely at smaller spatial scales. If hardware capable of solving equations with less precision at smaller scales were to be deployed operationally, the computational cost savings could be considerable, and these savings could be re-invested to produce forecasts of greater resolution, complexity or ensemble size.

University of Birmingham, Room 125, Geography Department, B15 2TT.

YORKSHIRE LOCAL CENTRE MEETINGS

Thursday 25 January 2018, 7.00pm - 8.00pm

Meteorological Tsunamis.

Speaker: David Williams, University of Liverpool.

School of Earth & Environment, Seminar Room, University of Leeds LS2 9JT.

Wednesday 21 February 2018, 7.00pm - 8.00pm

The Collapse of Lancaster's Critical infrastructure Networks following Intense Rainfall December 2015.

Speaker: Emma Ferranti, University of Birmingham.

School of Earth & Environment, Seminar Room, University of Leeds LS2 9JT.

Wednesday 14 March 2018, 7.00pm - 8.00pm

Extreme Global Warming: Reviewing the Paleocene Eocene Thermal Maximum.

Speaker: Tracy Aze, University of Leeds.

School of Earth & Environment, Seminar Room, University of Leeds LS2 9JT.



Gardening in a Changing Climate



A series of short presentations from horticultural and climate experts followed by a panel discussion about gardening in a changing climate.

The events will bring to life the RHS report "Gardening in a Changing Climate" which looks at how climate change will have an impact on the way we garden, and explores how those changes can be managed.

2018 dates and venues will be confirmed shortly.

Please keep an eye on www.rmets.org/events for details.

CONTACT DETAILS

Special Interest Groups

Association of British Climatologists	Chief Executive		britishclimatologists@rmets.org
Atmospheric Chemistry	Paul Young		atmoschem@rmets.org
Atmospheric Electricity	Giles Harrison		atmoselec@rmets.org
Aviation Meteorology	Jacob Kollegger		aviation@rmets.org
Climate Science	David Warrilow		climatescience@rmets.org
Data Assimilation	Cristina Charlton-Perez		dataassimilation@rmets.org
Dynamical Problems	Chief Executive		dynamicalproblems@rmets.org
History of Meteorology and Physical Oceanography	Norman Lynagh		history@rmets.org
Meteorological Observing Systems	Joelle Buxmann		metobs@rmets.org
Physical Processes	John Edwards		physicalprocesses@rmets.org
Satellite Meteorology and Oceanography	David Woolf		satellitemetoce@rmets.org
Weather, Art and Music	Pierrette Thomet		wam@rmets.org
Weather Service Providers	Chief Executive		weatherserviceproviders@rmets.org

Local Centres

East Anglia	Chris Bell		eastanglia@rmets.org
East Midlands	Roger Phillips		eastmidlands@rmets.org
North East	Dennis Wheeler		northeast@rmets.org
North West	Chris Dearden		northwest@rmets.org
Scottish (Edinburgh)	Richard Tabony		scotland@rmets.org
Scottish (Inverness)	Shona Mackie		scotland-Inv@rmets.org
South East	Ross Reynolds		southeast@rmets.org
South West	Dick Bateman		southwest@rmets.org
Welsh	Patrick Timko		wales@rmets.org
West Midlands	Ian Phillips		westmidlands@rmets.org
Yorkshire	Dorian Speakman		yorkshire@rmets.org