

Programme

5th OpenIFS workshop 2019



Monday (17th June)

Location: Allen Laboratory (no. 48 on the [map](#))

9:00 **Registration**

Chair: Robert Plant

9:30 **Welcome & opening**

Robert Plant (University of Reading, UK)

9:40 **Introduction of OpenIFS**

Glenn Carver (ECMWF, UK)

10:10 **Introduction to spectral method (solicited)**

Andreas Müller (ECMWF, UK)

10:30 **Practical exercise on spectral method**

Andreas Müller (ECMWF, UK)

11:00 Coffee & tea break

Chair: Victoria Sinclair

11:30 **IFS dynamical core and new aspects of OpenIFS 43r3 (solicited)**

Michail Diamantakis (ECMWF, UK)

12:30 **Difference between OpenIFS 40r1 and 43r3**

Glenn Carver (ECMWF, UK)

13:00 Lunch at Allen Laboratory (no. 48 on the [map](#))

14:00 **ecRAD (solicited)**

Robin Hogan (ECMWF, UK)

14:40 **Practical exercise on introduction to OpenIFS**

Marcus Köhler (ECMWF, UK)

**Questions and answers
session**

15:40 Coffee & tea break

16:00 **Practical exercise with OpenIFS on a real case study**

Gabriella Szépszó (ECMWF, UK)

17:00 End of the practical session

Tuesday (18th June)

Location:

Sutcliffe lecture theatre, room GU01, in the Meteorological Department (no. 58 on the [map](#))

8:30 **Registration**

Chair: Glenn Carver

9:00 **Welcome & opening**

Paul Williams (University of Reading, UK)

Andy Brown (ECMWF, UK)

9:40 **Diabatic processes in extratropical cyclones (solicited)**

Heini Wernli (ETH, Switzerland)

10:20 **Poster introductions (2 minutes and maximum 2 slides each)**

1. **UTLS humidity biases during NAWDEX**
Jake Bland (University of Reading, UK)
2. **Impact of moist progress on the short-term forecast of rainfall brought by Yagi to China in 2018**
Yun Chen (National Meteorological Center of China)
3. **Arctic influence on the predictability of the cold surge occurred in China during January 2016**
Guokun Dai (Fudan University, China)
4. **A coupled shallow and deep convection closure in OpenIFS**
Mokhliss El-azaar (EHTP, Morocco)
5. **Intensification variability of tropical cyclones in directional shear flows**
Jian-Feng Gu (University of Reading, UK)
6. **Negative PV in warm conveyor belt airstreams: observations, theory and models**
Ben Harvey (University of Reading)
7. **Raspberry PiPS: the Raspberry Pi Planet Simulator**
Sam Hatfield (University of Oxford, UK)
8. **An ensemble analysis on abrupt north turning of typhoon Meranti (2010) under the influence of an upper tropospheric cold low**
Ying Li (Chinese Academy of Meteorological Sciences)
9. **The stratospheric dynamics simulated by the OpenIFS model**
Federico Serva (CNR-ISMAR, Italy)
10. **OpenIFS Held-Suarez test: an educational application of the statistical equilibrium concept**
Lorenzo Silvestri (CIRIAF-CRC, University of Perugia, Italy)
11. **OpenIFS simulations for SSW 2018**
Irina Statnaia (University of Helsinki, Finnish Meteorological Institute)
12. **Algorithmic optimization of model closure parameters using ensemble forecasts**
Lauri Tuppi (University of Helsinki, Finland)

13. **Impact of moist convective progress on extreme frontal rainstorm forecast using ECMWF IFS**

Jun Xu (National Meteorological Center of China)

14. **How likely are cold pools to trigger new convection?** – not presented

Sophia Schäfer (Deutscher Wetterdienst, Germany)

10:50 Coffee & tea break

Chair: Suzanne Gray

11:20 **OpenIFS@home – Using citizen science to improve our understanding of weather forecasts**

David Wallom (University of Oxford, UK)

11:40 **Transition of Hurricane Debby (1982) and its re-development into an intense windstorm over Finland**

Terhi Laurila (Finnish Meteorological Institute)

12:00 **A review of the structure and variability of African easterly waves including their relationship with Atlantic tropical cyclogenesis (solicited)**

Chris Thorncroft (University at Albany, USA)

13:00 Lunch at the Meteorological Department (no. 58 on the [map](#))

Location: Allen Laboratory (no. 48 on the [map](#))

14:10 **Introduction of the case study & diagnostics**

Ben Harvey (University of Reading, UK)

14:30 **Practical session**

15:40 Coffee & tea break

16:00 **Practical session**

17:30 End of the practical session

18:00 **Ice breaker and poster session**

Wednesday (19th June)

Location:

Sutcliffe lecture theatre, room GU01, in the Meteorological Department (no. 58 on the [map](#))

Chair: Nedjeljka Žagar

- 9:00 **Challenges and limits in numerical weather prediction (solicited)**
Mark Rodwell (ECMWF, UK)
- 9:40 **The impact of moist processes on the large-scale extratropical circulation (solicited)**
Christian M. Grams (Karlsruher Institut für Technologie, Germany)
- 10:20 **Linking atmospheric rivers and warm conveyor belt airflows**
Helen Dacre (University of Reading, UK)
- 10:40 Coffee & tea break
- Chair: Mark Rodwell*
- 11:00 **Analysis and forecast uncertainties in the tropics: why do we care? (solicited)**
Nedjeljka Žagar (University of Hamburg, Germany)
- 11:40 **An Available Potential Energy budget for an axisymmetric tropical cyclone**
Bethan Harris (University of Reading, UK)
- 12:00 **Ensemble prediction with OpenIFS**
Pirkka Ollinaho (Finnish Meteorological Institute)
- 12:20 **Constraining stochastic parametrisation schemes using high-resolution model simulations and the OpenIFS Single Column Model**
Hannah Christensen (University of Oxford, UK)
- 12:40 Lunch at the Meteorological Department (no. 58 on the [map](#))

Location: Allen Laboratory (no. 48 on the [map](#))

- 13:50 **Practical session**
- 15:40 Coffee & tea break
- 16:00 **Practical session**
- 17:30 End of the practical session
- 19:00 **Drink and workshop dinner at ECMWF**

Thursday (20th June)

Location:

Sutcliffe lecture theatre, room GU01, in the Meteorological Department (no. 58 on the [map](#))

Chair: Christian M. Grams

- 9:00 **The impact of parametrized diabatic processes on weather forecasts (solicited)**
Keith Williams (Met Office, UK)
- 9:40 **Diabatic influence on tropopause sharpness and Rossby wave dynamics (solicited)**
John Methven (University of Reading, UK)
- 10:20 **The extratropical transition of Hurricane Ophelia (2017) as diagnosed with a generalized omega equation and vorticity equation**
Mika Rantanen (University of Helsinki, Finland)
- 10:40 Coffee & tea break
- Chair: Keith Williams*
- 11:00 **A first glance at EC-Earth and CMIP6 (solicited)**
Klaus Wyser (Swedish Meteorological and Hydrological Institute)
- 11:40 **FOCI-OIFS-1.0: A flexible climate model for high-resolution simulations**
Joakim Kjellson (GEOMAR, Germany)
- 12:00 **A portable framework to generate initial conditions for IFS/OpenIFS from ERA reanalysis products using OpenIFS**
Xavier Yepes Arbós (Barcelona Supercomputing Center, Spain)
- 12:20 **Orographic controls on continental lows in southern Africa**
Emma Howard (University of Oxford, UK)
- 12:40 Lunch at the Meteorological Department (no. 58 on the [map](#))

Location: Allen Laboratory (no. 48 on the [map](#))

- 13:50 **Practical session**
- 15:40 Coffee & tea break
- 16:00 **Practical session**
- 17:30 End of the practical session
- 19:00 **Social event for early career researchers**

Friday (21st June)

Location:

Sutcliffe lecture theatre, room GU01, in the Meteorological Department (no. 58 on the [map](#))

Chair: Gabriella Szépszó

9:00 **Meridional moisture transport by extra-tropical cyclones in the Southern Hemisphere (solicited)**

Victoria Sinclair (University of Helsinki, Finland)

9:40 **Results from OpenIFS@home**

David Wallom (University of Oxford, UK)

10:00 **Group presentations (max. 10 minutes each), discussion**

10:40 Coffee & tea break

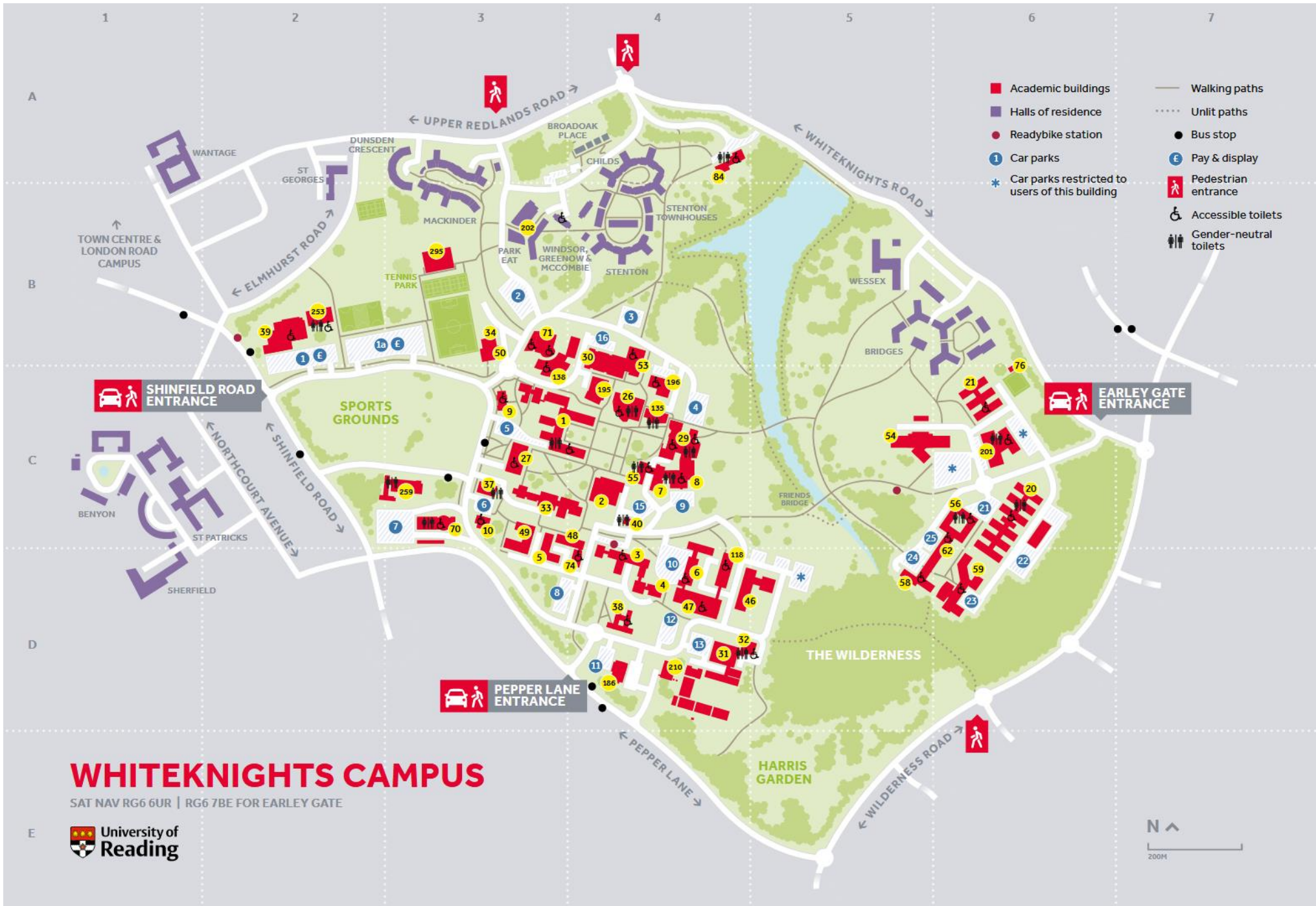
Chair: Glenn Carver

11:00 **Group presentations (max. 10 minutes each), discussion**

12:20 **Summary & closure of the workshop**

Suzanne Gray, Robert Plant (University of Reading, UK)

12:40 Lunch at the Meteorological Department (no. 58 on the [map](#))



- Academic buildings
- Halls of residence
- Readybike station
- 1 Car parks
- * Car parks restricted to users of this building
- Walking paths
- ⋯ Unlit paths
- Bus stop
- € Pay & display
- 🚶 Pedestrian entrance
- ♿ Accessible toilets
- ♂♀ Gender-neutral toilets

WHITEKNIGHTS CAMPUS

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