

Eddy (Eddie) Graham
UHI North West and Hebrides



Research Expertise

Instituto de Astrofísica de Canarias (Spain) - Visiting Professor (2017-)

United Arab Emirates Rain Enhancement Programme (UAERP), 2016- (Award winner 2018, reviewer)

European Southern Observatory (ESO) - Meteoscope project scientist (2017-2018) - awardee winner

Kenyan Optical Telescope Initiative (KoTi) - international project consortium member and STFC awardee winner (2018-2019)

UAERP (United Arab Emirates Rain Enhancement Programme) joint awardee winner \$5.5 million, (2018)

Astronomical and Atmospheric Site Testing, Institute of Astrophysics of the Canary Islands, Santa Cruz de Tenerife, 38205, Spain (sabbatical grant, 2017)

NASA Global Precipitation Mission (GPM) Stornoway ground station (2015-).. [read more](#)

SEPA Volcanic Ash Emissions in Scotland; Stornoway ground station (2016-).. [read more](#)

SASKYA ("Search for an Astronomical Site in Kenya") - Principal Investigator (2011-), using climate model reanalysis data, including Carnegie Trust travel grant awardee

Link between Weather, Climate and Health in the Outer Hebrides

SuLA and SECRE EU Northern Periphery Programme projects (2012-2014)

OCTES ("Opportunities for Community groups Through Energy Storage"), which is a new European Union Framework 7 Northern Periphery Project, involving partners from Scotland, Northern Ireland, Finland and Iceland (2011-2013)

The Greenspace Green Building Research Program (2009-2011) - weather, climate, buildings and reducing emissions

STARTWAVE (Studies in Atmospheric Radiative Transfer and Water Vapour Effects) and Alpine Thunderstorms, University of Bern, Switzerland (2005-2008) - researching clouds and water vapour

FriOWL (European Southern Observatory), Switzerland (2002-2008): Searching for a site for the OWL and E-ELT telescopes (PhD thesis)

The Large Synoptic Survey Telescope (LSST), site testing and climate variability study (2005)

Canadian pressure observations and circulation variability: links to air temperature (2000-2005)

The Canadian Cryosphere Information Network and State of the Canadian Cryosphere projects: Plotting real-time Canadian snow and ice information live on the web.

The micro-meteorology of a bog site in the Netherlands (Masters' dissertation)

The urban heat island of Dublin city during the summer months (Undergraduate dissertation)

Qualifications

Doctor of Philosophy, A Site Selection Tool for Very Large Telescopes, University of Bern
Award Date: 1 Jan 2008

Master of Science, Applied Meteorology - The Ground Heat Flux of a Bog in the Northern Netherlands, University of Reading
Award Date: 1 Jan 1995

Bachelor of Science, The Urban Heat Island of Dublin City, Trinity College Dublin

Award Date: 1 Jan 1993

... → 1996 Fellow of the Royal Meteorological Society, FRMetS

Research output

Industrieschnee: An overview of some European anthropogenic snowfall events, with a case study from Bern (Switzerland)

Graham, E., 5 Jan 2024, In: *Weather*. 79, 1

Understanding weather futures based on the past: a case of Stornoway, Outer Hebrides

Graham, E., Macdonald, N., Naylor, S., Bowen, J. P. & Harvey-Fishenden, A., 23 Jan 2023, In: *Scottish Geographical Journal*. 18 p.

Mesoscale en échelon precipitation radar patterns over the Hebrides, northwest Scotland, on 9 October 2022

Graham, E., Smart, D., Kidd, C. & Blackmore, T., 1 Dec 2022, In: *Weather*. 77, 12, p. 417-419 2 p.

Explosive cyclogenesis and an atmospheric river

Graham, E. & Smart, D., 1 Dec 2021, In: *Weather*. 76, 12, 2 p.

'Hurricane' Debbie – 60 years on: a fresh analysis

Graham, E. & Smart, D., 6 Sept 2021, In: *Weather*. 76, 9, p. 284-292 9 p., 9.

Downscaling the ERA5 reanalysis for 'Hurricane' Debbie (1961): evidence of both cold-conveyor belt and sting jets

University College London, 4 Sept 2021, In: *Weather*. 76, 9, p. 292-294 p.

Assessing the Impact of Light/Shallow Precipitation Retrievals from Satellite-Based Observations Using Surface Radar and Micro Rain Radar Observations.

Graham, E., Kidd, C., Smyth, T. J. & Éireann, M., 28 Apr 2021, In: *Remote Sensing*. 13, 9, 13 p., 1708.

Understanding the Atmosphere: Constraints on Astronomical Observation

Graham, E., 1 Aug 2017, In: *Canarian Observatories Updates (CUpS)*. 2017, 01, p. 1-4 4 p., 01-2017.

A note on the extreme low pressure of 24 December 2013

Graham, E., 1 Nov 2015, In: *Weather*. 70, 11, p. 316-317 2 p.

Search for an Astronomical Site in Kenya (SASKYA) using Climate Data

Graham, E., Buckley, D., Tirima, K. & Vaughan, R., 19 Mar 2015, In: *Theoretical and Applied Climatology*. 124, 1-2, p. 425-449 25 p.

'Blended' Learning at the University of the Highlands and Islands: A Case Study in Self-Awareness and Policy Making

Graham, E., Panciroli, E., Panciroli, E. & Clarke, S., 1 Mar 2015, In: *Journal of Perspectives in Applied Academic Practice*. 3, 1, p. 39-48 10 p.

Search for an Astronomical Site in Kenya (SASKYA) update: Installation of on-site automatic meteorological stations

Graham, E., 1 Nov 2014, *Journal of Physics: Conference Series*. 1 ed. IOPscience, Vol. 595. p. 1-6 6 p.

The water vapour flux above Switzerland and its role in the August 2005 extreme precipitation and flooding

Koffi, E. N., Graham, E. & Mätzler, C., 1 Jul 2013, In: *Meteorologische Zeitschrift*. 22, 3, p. 328-341 13 p.

An observational study of air and water vapour convergence over the western Alps during summer and the development of isolated thunderstorms

Graham, E., 1 Dec 2012, In: *Meteorologische Zeitschrift*. 21, 6, p. 561-574 13 p.

A Hebridean frost hollow made visible

Graham, E., 25 Jan 2012, In: *Weather*. 67, 2, p. 45-47 3 p.

Using re-analysis model data ("FriOWL") to analyse climate trends related to astroclimatology of Paranal and La Silla

Graham, E., Nov 2011, In: *Revista Mexicana de Astronomía y Astrofísica*. 41, p. 12-15 4 p.

Development of regional and Pan-European guidelines for more efficient integration of renewable energy into future infrastructure

Graham, E., Oct 2010, European Commission. 100 p.

The water vapour mass balance (flux) of Switzerland

Graham, E., Mar 2010, Institut für angewandte Physik, Universität Bern. 37 p. (2010-01-MW)

An observational study of air and water vapour convergence over the western Alps during summer and the development of isolated thunderstorms

Graham, E., Feb 2009, Institut für angewandte Physik, Universität Bern. 75 p.

The FriOWL Guide: A site selection tool for extremely large telescopes using climate data

Graham, E., Sept 2008, 3188 ed. Institut für angewandte Physik, Universität Bern. 257 p.

Site selection for Extremely Large Telescopes using the FriOWL software and global re-analysis climate data

Graham, E., 27 Aug 2008. 12 p.

Applications of FriOWL: The Paranal and La Silla Astroclimate Report

Graham, E., Aug 2008, 3187 ed. Institut für angewandte Physik, Universität Bern. 85 p.

A site selection tool for large telescopes using climate data

Graham, E., Apr 2008, 3149: Institut für angewandte Physik, Universität Bern. 217 p.

The Mistral as seen by satellite

Graham, E., 29 Dec 2006, In: *Weather*. 61, 9

FriOWL: A Site Selection Tool for the European Extremely Large Telescope (E-ELT) Project

Graham, E., Sept 2006, In: *The Messenger*. 125, 9, p. 44-47 4 p.

200mm falls in Ireland

Graham, E., Jun 2006, In: *Weather*. 61, 5, 2 p.

Canadian pressure observations and circulation variability: links to air temperature

Graham, E., 22 Jul 2005, In: *International Journal of Climatology*. 25, 11, p. 1473-1492 20 p.

Climate-based site selection for a Very Large Telescope using GIS techniques

Graham, E., Mar 2005, In: *Meteorological Applications*. 12, 1, p. 77-81 5 p.

Integrated water-vapour dynamics over Switzerland during severe precipitation in August 2005

Graham, E., 2005. 2 p.

Homogenisation of a Canadian surface pressure database

Graham, E., Sept 2004, *Proceedings of Fourth Seminar for Homogenisation and Quality Control in Climatological databases*. Budapest: Hungarian Met Service, p. 63-79 16 p.

Site Selection for OWL using past, present and future climate information

Graham, E., 21 Jun 2004, *Proceedings of the SPIE*. USA: SPIE, Vol. 5489. 10 p.

The Emerald Isle turns white: Snow and very low surface temperatures over Ireland during Christmas 2000

Graham, E., Jan 2004, In: *Weather*. 59, 1, p. 15-19 5 p.

Nacreous clouds in November 1999 and record low ozone

Graham, E., Mar 2002, In: *Weather*. 57, 3, p. 107-108 2 p.

The Urban Heat Island of Dublin City during the Summer Months

Graham, E., Feb 1993, In: *Irish Geography*. 26, 1, p. 45-57 13 p.

Awards

UAEREP: UAE Rain Enhancement Programme

Graham, E. & Abshaev, A.

UAE Rain Enhancement Programme: £4,145,130.00