

Finding the Weather and Climate RSE Community

RSECon24 Birds of a Feather Session

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Sadie Bartholomew (NCAS-CMS)



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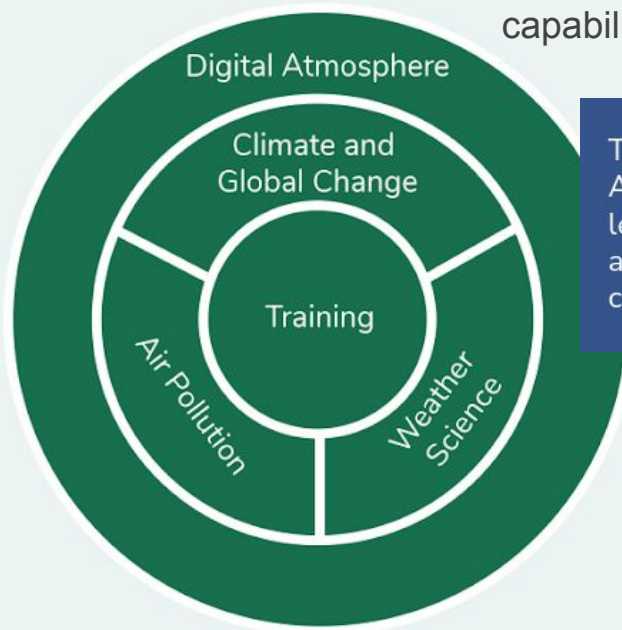
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What do we do?

Our *science* - three research areas:

- Underpinned by digital atmosphere capability



The National Centre for Atmospheric Science is a world-leader in atmospheric research and innovation, committed to changing lives.

Our Mission

is to understand our atmosphere, how it is changing, and how it impacts life on Earth.*

** our work spans much more than just the atmosphere though*

Services we provide to the scientific community:

- FAAM Airborne Laboratory (research aircraft, pictured!)
 - Atmospheric Measurement and Observation Facility
 - Centre for Environmental Data Analysis (CEDA)
 - Computational Modelling Services (CMS)



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How do our RSEs work?

Our staff are *embedded* at one of 12 universities and research institutes across the UK (joint affiliation with NCAS and e.g. University of Reading) and *the majority of our RSEs work for one of these two (of four) services*:

- [Computational Modelling Services](#) (NCAS-CMS): provides HPC resource management and software engineering support for the UK atmospheric and polar science community, and delivers key underpinning infrastructure to allow users to run complex modelling workflows on national platforms (**~15 RSE/managers**).
- [Centre for Environmental Data Analysis](#) (CEDA): serves the environmental science community by the provision of data centres, data analysis & access, and research project participation (**~30 RSE/managers**). For example, CEDA co-manage, along with STFC, the **JASMIN** data-intensive supercomputer.

What tools and approaches do we use?

- Our own tools are generally open source and under modern version control (i.e. git) e.g. a lot of our codebases are under github.com/NCAS-CMS (CMS) or github.com/cedadev (CEDA).
- Our work involves HPC, infrastructure, model development/support, user support and training, workflow and tool development, and more.

What do we need/want from a Climate & Weather RSE community?

1. More collaboration and knowledge sharing, ultimately with the aim of *less reinvention of the wheel* (we are aware of a lot of this in the domain)!
2. Helping each other stay on top of new tools, best practice, and progress in the domain.
3. Making our data more standardised & interoperable. 13

Panel Discussion

Chairs - Colin Sauze & Helen Burns



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Sadie Bartholomew - Computational Scientist - NCAS

Benjamin O'Driscoll - Research Software Engineer - PML

John Stevenson - Senior Software Developer - BGS

Emma Hogan - Senior Scientific Software Engineer - Met Office

Zbigniew Piotrowski - Computational Scientist - ECMWF