

University of Oxford - Department of Physics - Academic

This fellowship will equip researchers with three core skills that are transforming weather forecasting but remain inaccessible to most researchers in Africa: scientific computing, running AI weather prediction models, and interpreting what physical representations they have learnt.

AI-based weather models are rapidly reshaping operational forecasting worldwide. Such models compress the atmosphere into compact statistical representations, producing skilful forecasts in seconds and are freely available/open-source. For resource-constrained forecasting centres, these models offer a step change in capability, but only if forecasters can run them, understand what they capture, and recognise their caveats.

Based at the department of Atmospheric, Oceanic and Planetary Physics (AOPP), University of Oxford, the fellows will collaborate with the Oxford-affiliated research institute, AfriClimate AI as well as centres such as Google DeepMind. The fellows will return home as practitioners who can deploy AI forecasting tools, train colleagues to do the same and retain a long-term network of collaborations.

Eligibility

Open to PhD holders in meteorology, atmospheric physics, climate science, or a closely related physical science, employed at a university in a Commonwealth country in Africa. Applicants should have research interests in weather prediction, atmospheric dynamics, or climate processes. The program assumes no prior knowledge of programming and is suited for people who want to upskill on AI for weather prediction and preferably have experience working within operational meteorological centres.

Proposed Programme Dates: 17/02/2027 to 11/05/2027

Priority Theme: Science and technology for development

Recruiting from an established network: Yes

<https://www.physics.ox.ac.uk/research/subdepartment/atmospheric-oceanic-and-planetary-physics>