JOB DESCRIPTION

Vacancy reference:	SRF32757
Post Title:	Research Scientist
Grade:	Grade 6
School/Department:	SMPCS/National Centre for Atmospheric Science
Reports to:	Dr Robin Smith (Principal Investigator and Line Manager)
Responsible for:	none

Purpose

To carry out scientific research on the interaction of ice sheets and climate and consequent changes in sea-level. This will be principally done by undertaking, analysing and evaluating novel Earth System model simulations of these interactions under present and future conditions, and combining the results with paleoclimate simulations done elsewhere in the project in a statistical emulator. This research is funded by a NERC grant to the PI and a cross-disciplinary team of collaborators.

Main duties and responsibilities

- Help design and carry out simulations of present and future climate-ice-sheet interactions using our Earth System models with interactive ice sheets to explore ice sheet tipping points and projections of future polar climates.
- Collaborate with co-investigators at the University of Leeds who will be running parallel simulations at targeted periods since the Last Glacial Maximum.
- Help build and run an emulation framework with co-investigators at Kings College, London that will combine all the project's simulation results into a tool for probabilistic projections of future ice sheet contribution to sea level rise.
- Report on progress and results of this research through appropriate methods, including: papers for submission to scientific journals, presentation of results at conferences, workshops etc, and presentations to the general public if appropriate.
- Maintain awareness of current progress in relevant research areas, to ensure that the research remains at the cutting edge.

Supervision received

Dr Robin Smith (PI and Line Manager) will provide general guidance and specific scientific and technical direction as required. It is expected that the postholder, Dr Smith and Professor Gregory (Reading project Co-I) will meet regularly to discuss progress in the project.

Supervision given

None

Terms and conditions

Full time post on a fixed-term project

This document outlines the duties required for the time being of the post to indicate the level of responsibility. It is not a comprehensive or exhaustive list and the line manager may vary duties from time to time which do not change the general character of the job or the level of responsibility entailed.

Date assessed: May 2020

PERSON SPECIFICATION

Job Title	School/Department
Research Scientist	SMPCS/Meteorology/NCAS

Criteria	Essential	Desirable
Skills Required	• Strong scientific analytical ability. • Good communication skills, both written and oral. • Ability to maintain productive working relationships with collaborators at Reading and other institutions.	• Programming in Fortran, Python Unix shell. • Conducting complex model simulations of aspects of the climate system. • Working with statistical emulator frameworks
Attainment	• PhD (or expect to receive one shortly) in physical or mathematical science.	• PhD in climate, ocean, Earth system or atmospheric science. • Appropriate publication record.
Knowledge	• Evidence of knowledge of and interest in polar aspects of future climate change science. • Evidence of knowledge of and interest in dynamic ice sheet behaviour	• Knowledge of and interest in factors influencing sea-level rise • Knowledge of and interest in ice sheet-climate interactions in a paleoclimate context.
Relevant Experience	• Research in climate, ocean, atmosphere or Earth system modelling	• Programming and data analysis in a context relevant to complex Earth System models.
Disposition	• Self-motivated, conscientious and creative • Communicative and open to collaboration	• Enjoy working with others. • Willingness to under-take visits to relevant institutions/events.

Completed by: R.S. Smith	Date: 12-05-20