

JOB DESCRIPTION

Vacancy reference:	SRF19355
Post Title:	Postdoctoral Research Assistant Data assimilation
Grade:	Grade 6
School/Department:	SMPCS/Meteorology
Reports to:	Prof P.J. van Leeuwen
Responsible for:	n/a

Purpose

The post will be part of a team of 7 scientists working on the European Research Council Advanced Investigator Grant CUNDA, that will develop and combine causality and nonlinear data assimilation to infer cause and effect relation in the highly turbulent ocean area around South Africa. Specifically, the post will be responsible for developing the nonlinear data-assimilation method further so that it can be applied to such a high-dimensional and complex system.

Main duties and responsibilities

The main responsibilities are:

- Drive the development of the particle filter method further.
- Assist programmer to code the method into the data-assimilation framework EMPIRE.
- Assist with the data-assimilation experiments and the analysis of the results.
- Be an active and productive member of a strong team aiming to deliver the best possible science
- Publish high-quality papers in high-quality journals

Supervision received

The postdoc will be supervised by prof P.J. van Leeuwen via weekly personal meetings.

Supervision given

No supervision required, but supervision of PhD students is a possibility.

Contact

The postdoc will attend the weekly CUNDA team meetings and the weekly Data-Assimilation research Centre (DARC) meetings. He/she will work with world-class physical oceanographers in the UK and internationally, specifically with Prof De Ruijter (IMAU, Utrecht, Netherlands) and his group. Furthermore, the postdoc will work with members of the National Centre for Earth Observation NCEO.

Terms and conditions

Full time. Fixed term.

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 2017

PERSON SPECIFICATION

Job Title	School/Department
Postdoctoral Research Assistant Data Assimilation	Meteorology

Criteria	Essential	Desirable
Skills Required	Either <ul style="list-style-type: none"> • Fortran90, or • Python 	
Attainment	<ul style="list-style-type: none"> • PhD in quantitative science or mathematics 	
Knowledge	<ul style="list-style-type: none"> • Nonlinear data assimilation methods • Data assimilation in high dimensional systems 	<ul style="list-style-type: none"> • Geophysics • Oceanography
Relevant Experience	<ul style="list-style-type: none"> • Strong publication record in relation to experience and areas relevant to this post 	
Disposition	<ul style="list-style-type: none"> • Team worker • Highly motivated • Ability to work independently • Creative 	

Completed by: Peter Jan van Leeuwen	Date: 14/05/2017
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