

# JOB DESCRIPTION

<b>Vacancy reference:</b>	SRF19337
<b>Post Title:</b>	Computational scientist
<b>Grade:</b>	Grade 6
<b>School/Department:</b>	SMPCS/Meteorology
<b>Reports to:</b>	Prof P.J. van Leeuwen
<b>Responsible for:</b>	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 assisting other team members with their numerical work.

## Main duties and responsibilities

The main responsibilities are:

- Assist with running the ocean models
- Assist with coupling the ocean model to the data-assimilation framework EMPIRE
- Assist with programming model-observation interfaces (observation operators) and other observations related coding work.
- Assist with developing efficient codes for causality measure tools.
- Be an active and productive member of a strong team aiming to deliver the best possible science
- Be part of 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:**

14 May 2017-05-14

# PERSON SPECIFICATION

Job Title	School/Department
Computational scientists	Meteorology

Criteria	Essential	Desirable
<b>Skills Required</b>	<ul style="list-style-type: none"> <li>• Fortran90</li> <li>• UNIX</li> <li>• MPI</li> <li>• Python</li> </ul>	
<b>Attainment</b>	<ul style="list-style-type: none"> <li>• PhD in quantitative science or mathematics</li> </ul>	
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• High-Performance Computing</li> </ul>	<ul style="list-style-type: none"> <li>• Ocean model NEMO</li> <li>• Data assimilation</li> <li>• Causality</li> </ul>
<b>Relevant Experience</b>	<ul style="list-style-type: none"> <li>• Strong experience record in relation to areas relevant to this post</li> </ul>	
<b>Disposition</b>	<ul style="list-style-type: none"> <li>• Team worker</li> <li>• Highly motivated</li> <li>• Ability to work independently</li> <li>• Creative</li> </ul>	

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