

SPECIAL PROJECT PROGRESS REPORT

Progress Reports should be 2 to 10 pages in length, depending on importance of the project. All the following mandatory information needs to be provided.

Reporting year 2018.....

Project Title: Understanding linkages between the Arctic and mid-latitudes using relaxation experiments

Computer Project Account: spdejung.....

Principal Investigator(s): Prof Dr Thomas Jung

Affiliation: Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research

Name of ECMWF scientist(s) collaborating to the project (if applicable) Dr. Tido Semmler and Dr. Kunhui Ye

Start date of the project: 1 January 2018

Expected end date: 31 December 2018

Computer resources allocated/used for the current year and the previous one (if applicable)

Please answer for all project resources

		Previous year		Current year	
		Allocated	Used	Allocated	Used
High Performance Computing Facility	(units)	N/A	N/A	25.970.000	0
Data storage capacity	(Gbytes)	N/A	N/A	77.200	0

Summary of project objectives

(10 lines max)

In this study, the influence of the Arctic atmosphere on mid-latitude weather and climate is explored from a prediction perspective. More specifically, seasonal forecast experiments will be carried out in which the atmosphere is relaxed towards ERA-Interim data in certain regions (e.g., the Arctic), leaving the model run freely elsewhere. This approach, which has been successfully applied by Jung et al. (2014) for medium-range and subseasonal predictions during boreal winter, provides insight into the potential that enhanced predictive capacity in the Arctic has on mid-latitude forecast skill and vice versa. Furthermore, it allows to “verify“ teleconnections.

.....
.....
.....
.....
.....

Summary of problems encountered (if any)

(20 lines max)

No problems have been encountered.

.....
.....
.....
.....
.....
.....

Summary of results of the current year (from July of previous year to June of current year)

The experiments haven’t been started yet. This is because the project PI, Thomas Jung, will be visiting ECMWF for a two-week period in July 2018, during which the experiments will set up and started.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

List of publications/reports from the project with complete references

N/A

.....

.....

.....

.....

.....

.....

.....

Summary of plans for the continuation of the project

(10 lines max)

It is expected that the majority of the experiments will be running in summer this year. The analysis of the results is expected to start in autumn. The multi-model analysis, comparing the results for the ECMWF system with those from the Meteo France system, will start in early 2019.

.....

.....

.....

.....

.....

.....