Scalable and Computationally Reproducible Approaches to Arctic Research

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Preface

About

This 5-day in-person workshop will provide researchers with an introduction to advanced topics in computationally reproducible research in python and R, including software and techniques for working with very large datasets. This includes working in cloud computing environments, docker containers, and parallel processing using tools like parsl and dask. The workshop will also cover concrete methods for documenting and uploading data to the Arctic Data Center, advanced approaches to tracking data provenance, responsible research and data management practices including data sovereignty and the CARE principles, and ethical concerns with data-intensive modeling and analysis.

Schedule

Coming soon

Code of Conduct

Please note that by participating in this activity you agree to abide by the NCEAS Code of Conduct.

About this book

These written materials reflect the continuous development of learning materials at the Arctic Data Center and NCEAS to support individuals to understand, adopt, and apply ethical open science practices. In bringing these materials together we recognize that many individuals have contributed to their development. The primary authors are listed alphabetically in the

citation below, with additional contributors recognized for their role in developing previous iterations of these or similar materials.

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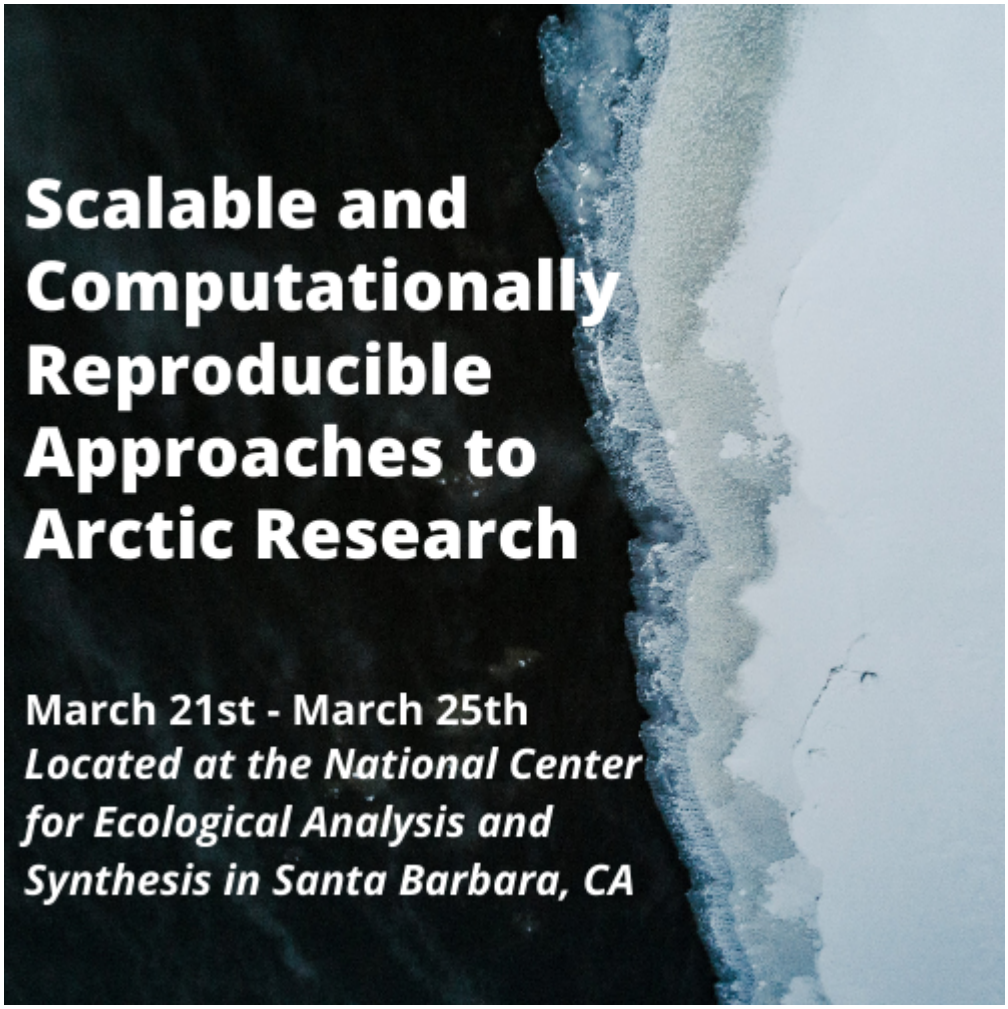
1 Welcome and Introductions

This course is one of three that we are currently offering, covering fundamentals of open data sharing, reproducible research, ethical data use and reuse, and scalable computing for reusing large data sets.


Fundamentals in
Data Management
for Qualitative
and Quantitative
Arctic Research
April 18th - April 22nd
Located at the National Center for Ecological
Analysis and Synthesis in Santa Barbara, CA


Scalable and Computationally Reproducible Approaches to Arctic Research
March 21st - March 25th
Located at the National Center for Ecological Analysis and Synthesis in Santa Barbara, CA

2 Remote Computing

2.1 Learning Objectives

3 Python Syntax Refresher

3.1 Learning Objectives

4 Pleasingly Parallel Computing

4.1 Learning Objectives

5 Documenting and Publishing Data

5.1 Learning Objectives

References