# Software Engineering for Research Software

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THE UNIVERSITY OF **ALABAMA** COMPUTER SCIENCE

http://SE4Science.org

SE4Science

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... 2018 International Workshop on Software Engineering for Science (SE4Science18) has been accepted for ICSE2018 conference in Gothenber

Software Engineering for Science

The increase in the importance of Scientific & Engineering Software motivates the need to identify and understand which software engineering (SE) practices are appropriate. Because of the uniqueness of the scientific & engineering software domain, existing SE tools and techniques developed for the business/IT community are often not efficient or effective. Appropriate SE solutions must account for the salient characteristics of the scientific & engineering software development environment. To identify these solutions, members of the SE community must interact with members of the scientific & engineering software community.

Surveys
Workshops
SE-CS Community
Direct Interactions
Case Studies
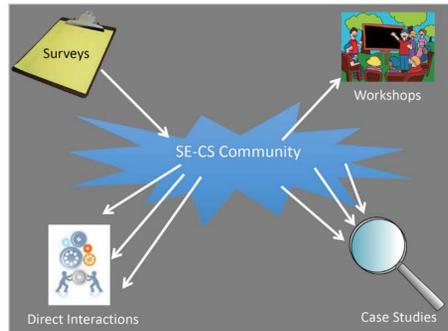
Hub for Information about Software Engineering for Science

Materials from Tutorials and Workshops

Curated Reading List of Papers

Announcements of Upcoming Events

Peer Code Review Tutorials

Half-day

Overview of practice

Motivation for use

Precursor to collaboration

Interested in hosting a tutorial, developing expertise, and implementing locally? Contact Jeffrey Carver!

US Research Software Sustainability

Institute conceptualization

Help research software projects grow and become sustainable

Provide good software practices

Focus on entire research ecosystem – developers, maintainers, and users

Specific foci: Criticality of Software, Credit, Incubation, Training, Career Paths

URSSI   http://URSSI.us   About   Workshops   Discuss

URSSI

Developing a pathway to research software sustainability

SE4Science Workshops
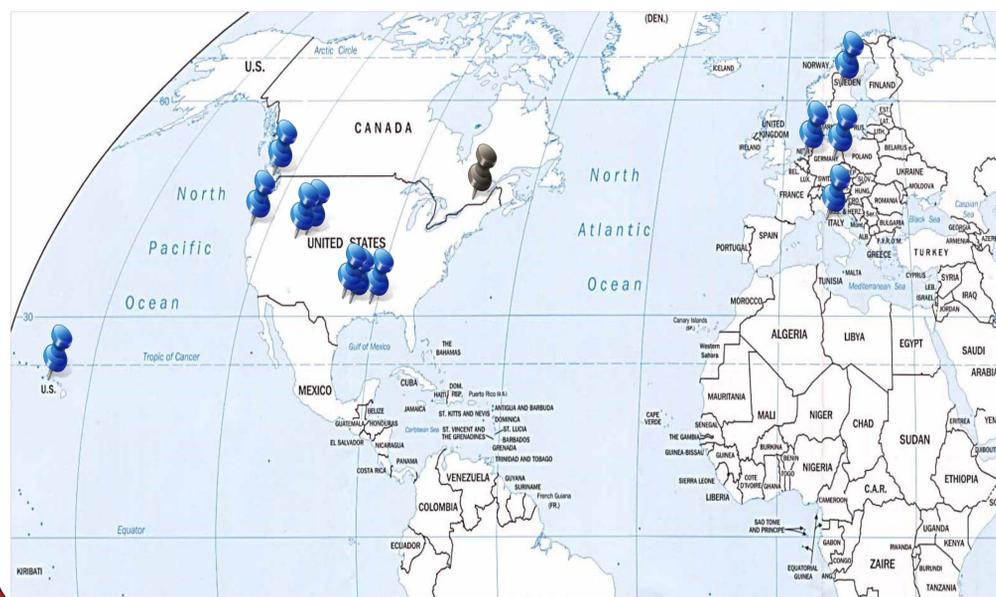
CASE STUDY   LESSONS LEARNED

Agile-inspired methodologies
- Adaptable to change
- Focus on people not process

Development Goals
- Performance
- Portability

V&V
- Vary in formality
- Impacted by sponsor

better scientific software

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