Update: Better Scientific Software

Dedicated to improving developer productivity and software sustainability for CSE

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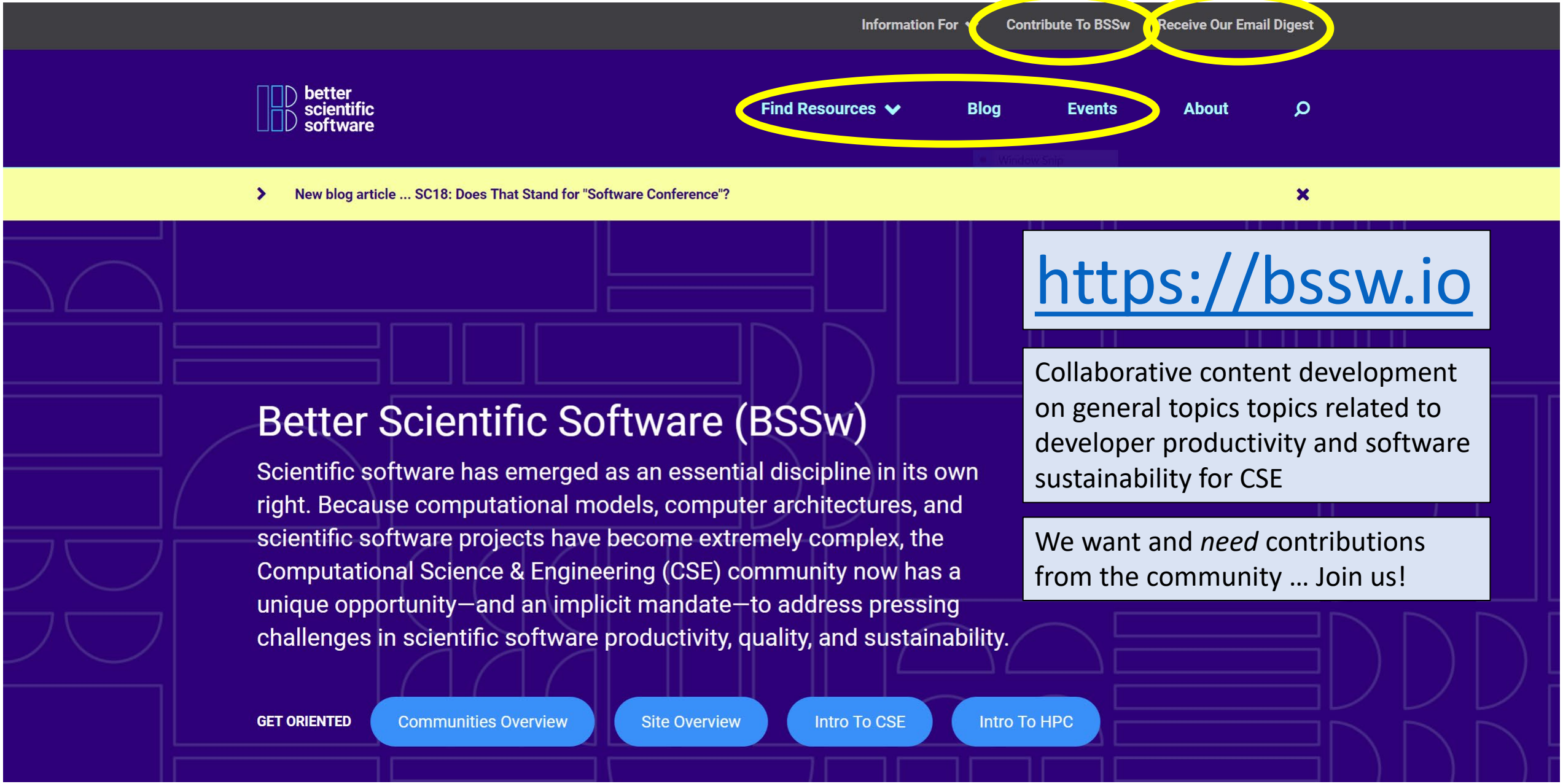
November 14, 2018

SC18 BOF: Software Engineering and Reuse in Computational Science and Engineering



https://bssw.io

Collaborative content development on general topics topics related to developer productivity and software sustainability for CSE

We want and *need* contributions from the community … Join us!

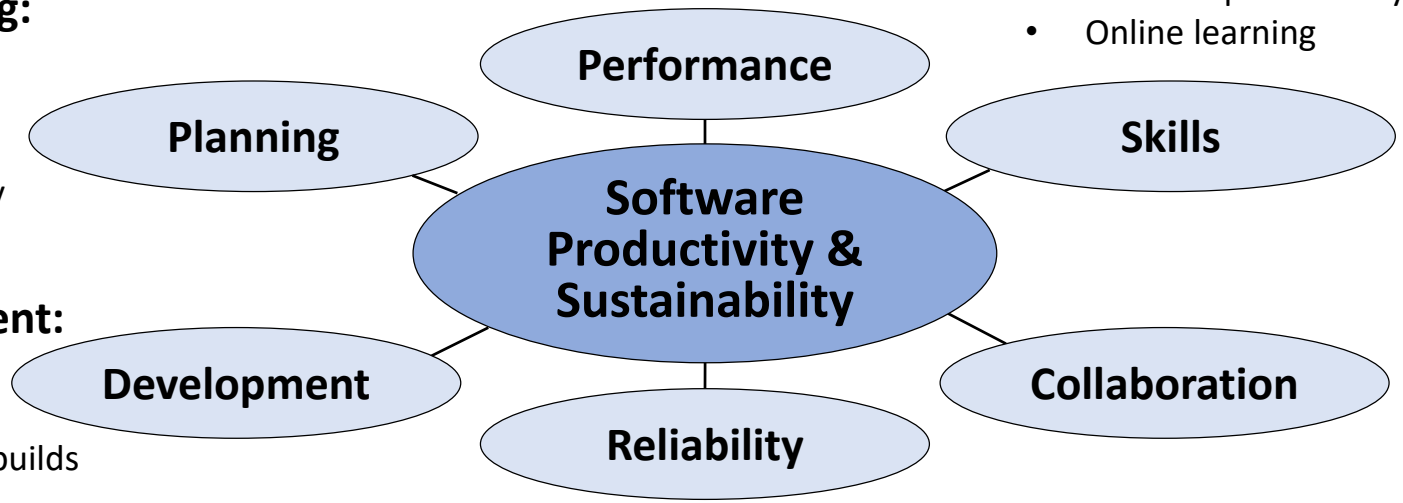
Resource Topics

better scientific software

Better Performance:
- High-performance computing
- Performance at LCFs
- Performance portability

Better Planning:
- Requirements
- Design
- Software interoperability

Better Skills:
- Personal productivity and sustainability
- Online learning



Better Development:
- Documentation
- Version control
- Configuration and builds
- Deployment
- Issue tracking
- Refactoring
- Software engineering
- Development tools

Better Collaboration:
- Licensing
- Strategies for more effective teams
- Funding sources and programs
- Projects and organizations
- Software publishing and citation
- Discussion forums, Q&A sites

Better Reliability:
- Testing
- Continuous integration testing
- Reproducibility
- Debugging

better scientific software

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Types of Content

- **"What Is" document:** Define terms and concepts in a particular topic area.
- **"How To" document:** A document that describes a process for improving productivity and sustainability.
- **Original experience:** An original article to inform the CSE community about how to improve developer productivity and software sustainability.
- **Blog article:** An original article in the form of a blog of 250 - 500 words. We will solicit contributions from thought leaders in the community and welcome proposals from anyone.
- **Curated links:** A brief article that highlights other web-based articles or content. Your article should describe why the CSE community might find value.
- **Event:** A brief description of an event relevant to better scientific software.

In-scope Content

- General issues in productivity and sustainability that overlap with common challenges faced in the CSE software community.
- General tools for productivity and sustainability that can be widely used by CSE developers.
- Characterization of challenges and solutions that may be particularly valuable to the CSE community.

Highlight Connections to CSE

- How your topic intersects with themes that are of particular interest to CSE, for example MPI, Fortran, C++, architectures, modeling and simulation.
- Why your topic could be of particular interest to CSE.

Ease of Adoption and Use

- Address how easy or hard it is to benefit from your topic.
- Address who would be particularly interested in the topic.

We *need* your input! Contribute to BSSw! https://bssw.io

Tech tattoo