

# Introduction to Volume 17, Issue 1

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Issue 17-1 of the Journal of Computational Science Education features 12 articles, including 11 articles presented at the 12th SC Workshop on Best Practices for High Performance Computing and Education Workshop at SC25 in St Louis, MO.

The 12th annual BPHTE meeting featured many different themes, including AI as both subject and tool. Mullen et al. presented materials focused on training researchers to build and use LLM-RAG models, and Dey and Lindsey showcased work using narrative datasets to teach AI-ML pipelines. Morsy et al. employed AI agents to validate metadata in HPC Education digital library learning objects, and Rasul and Stuart studied user attitudes towards an AI Assistant designed to help guide users to answers in their HPC systems. Broadening participation in HPC is another theme represented here. Johnston et al. present an HPC education project aimed at cluster competitions engaging undergraduates from historically disadvantaged communities in South Africa. Yu et al. present introductory HPC training for users without prior technical background. Luchini-Colbry et al. showcase the CyberAmbassadors program, including mentor networks and a focus on culturally aware mentoring. Another theme was the use of competitions and experiential learning. Carbanaru and Sami describe cluster competition programs at the National University of Singapore, and Jezghani and Fry describe

a physical sciences hackathon. Cross-institutional collaboration was also on display, with Diehl et al. presenting community driven curriculum development across the national labs, and Sukhija et al. presenting a national roadmap derived from the NAIRR Pilot User Experience Working Group. Additionally, JOCSE 17-1 features a student paper by Iyinbor et al. describing an application of machine learning to classify steel alloys by stacking fault energy regimes.

We encourage you to submit your work to the Journal of Computational Science Education. Computational science is an increasingly important interdisciplinary field, offering insights into complex systems, accelerating discovery, and helping to solve diverse problems. We welcome high-quality papers describing instructional materials, successful projects, or research on instructional efficacy. Whether you are faculty or a student, your contributions are valuable to advancing computational science education. Additionally, if you have expertise in computational science, consider volunteering as a reviewer to support our peer review process. Together, we can share successes and inspire others to develop and adopt computational science in education.

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Sincerely, Dave Joiner