PSC

COVID-19 & Neutron-Star Science Using PSC Supercomputers Recognized in Separate 2020 HPCwire Awards

17th Annual HPCwire Awards Presented to Leaders in the Global HPC Community

Artificial intelligence (AI) studies spanning from the tiny to the huge—from small molecules for fighting the SARS-CoV-2 virus to the enormous forces between colliding neutron stars—and powered by PSC, have received separate HPCwire Editors' Choice Awards this year. PSC has been recognized in the annual HPCwire Readers' and Editors' Choice Awards, presented digitally during the virtual 2020 International Conference for High Performance Computing, Networking, Storage and Analysis (SC20) via HPCwire.com.

"We at PSC are extremely honored to be chosen by HPCWire to be recognized for the work we have done with our collaborators at Carnegie Mellon University, University of Illinois Urbana-Champaign and the Texas Advanced Computing Center this year in combating COVID-19 with AI and simulating neutron star collisions," said Shawn T. Brown, PSC's director.

The list of winners was revealed and is accessible through the HPCwire virtual booth, and on the HPCwire website, www.HPCwire.com. PSC was recognized for:

Editors' Choice: Best Use of High-Performance Data Analytics & Artificial Intelligence
Scientists at Carnegie Mellon University used PSC's Bridges and Bridges-AI supercomputing platforms to apply the awesome power of AI to the quantum mechanics of small molecules targeting the SARS-CoV-2 virus. Their new method will accelerate and improve the accuracy of screening new candidate drugs against the virus that causes COVID-19. The time on PSC's computers was awarded to the researchers through the COVID-19 HPC (High-Performance Computing) Consortium, of which PSC is a leading member. You can find more about PSC's COVID-19 work here.
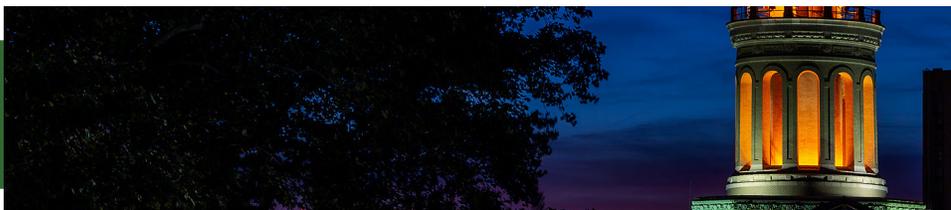
Editors' Choice: Best Use of HPC in Physical Sciences

AI, a major focus at PSC, was at the center of another awarded project. PSC shares the award with the National Center for Supercomputing Applications, whose scientists used PSC's Bridges to get a correction factor that will allow much faster simulations of neutron star collisions for the LIGO and Virgo gravitational wave observatories. PSC also shares the award with the Texas Advanced Computing Center, whose Stampede2 supercomputer created the simulations analyzed by an AI program running on PSC's Bridges. The project's computing time was awarded through the National Science Foundation's XSEDE network of supercomputing centers. You can find more about recent neutron-star-merger science at PSC here.
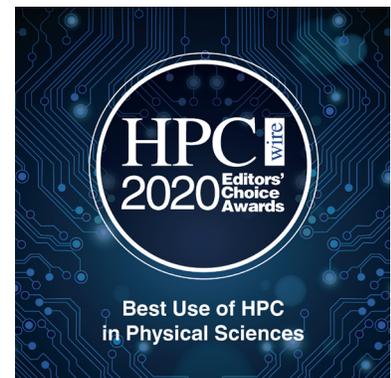
The annual, highly coveted, HPCwire Readers' and Editors' Choice Awards are determined through a rigorous nomination and voting process that engages the global HPCwire community and includes intensive review and selections from the HPCwire editorial team. The awards represent prestigious recognition from the HPC community and have become a proud, prominent feature of the publication. These accolades are revealed each year to kick off the annual supercomputing conference, which showcases high performance computing, networking, storage, and data analysis.

"Each year we look forward to connecting with our HPC community while recognizing exceptional industry innovation at SC," said Tom Tabor, CEO of Tabor Communications, publisher of HPCwire. "While it saddens us that we cannot physically connect with one another this year, we take great pride in bringing the community together through our new digital format for the Reader's and Editors' Choice Awards. This pandemic has brought our community together in ways we never imagined possible. The recent collaborations, innovative research, and breakthroughs in technology have not gone unnoticed. It is through these critical HPC efforts that we may address and mitigate the impact of problems facing humanity today and those that may challenge us in the future. We congratulate and honor all who have exceeded expectations and have truly excelled despite the challenges this pandemic has presented in 2020. Our congratulations go out to all the winners and nominees. We hope to see our community face to face next year to celebrate in person!"

More information on these awards can be found at the HPCwire website (www.HPCwire.com) or on Twitter through the hashtag: #HPCwireAwards.