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## SDSC Receives Two ‘Best’ HPCwire Awards for 2020

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

The San Diego Supercomputer Center (SDSC) at the University of California San Diego received two HPCwire awards for 2020, including ‘Best Use of HPC (High-Performance Computing) in the Cloud’, and ‘Best Use of HPC in Energy’.

The online publication formally announced the awards during the annual International Conference for High-Performance Computing, Networking, Storage, and Analysis, otherwise known as SC20, held in a virtual format for the first time due to the coronavirus pandemic. HPCwire recognized SDSC and its collaborators with the following honors for 2020:



- **Editors’ Choice Award: Best Use of HPC in the Cloud (Use Case)**

Researchers from the IceCube Neutrino Observatory and SDSC leveraged 51,000 cloud GPUs simultaneously available via commercial providers AWS, Azure, and Google to perform the largest GPU ‘cloud burst’ in history to process data from neutrino sensors buried in the ice of the South Pole. Details of that experiment and a follow-up one can be found at:

[https://www.sdsc.edu/News%20Items/PR20191119\\_GPU\\_Cloudburst.html](https://www.sdsc.edu/News%20Items/PR20191119_GPU_Cloudburst.html) and [https://www.sdsc.edu/News%20Items/PR20200212\\_gpu\\_cloudburst.html](https://www.sdsc.edu/News%20Items/PR20200212_gpu_cloudburst.html).

Research partners in the first experiment for which the award was given included:

- Frank Würthwein and Igor Sfiligoi (SDSC)

- Benedikt Riedel and David Schultz (IceCube Neutrino Observatory, University of Wisconsin – Madison)
- [Open Science Grid](#), HTCondor, Internet2, and Pacific Research Platform
- The National Science Foundation
- **Editors' Choice Award: Best Use of HPC in Energy**

As part of an allocation from the National Science Foundation's Extreme Science and Engineering Discovery Environment (XSEDE) program, researchers from the Georgia Institute of Technology and the Hanoi University of Science and Technology in Vietnam used SDSC's *Comet* supercomputer and the *Stampede2* system at the Texas Advanced Computing Center (TACC) to identify four lead-free candidates for a more efficient, less expensive alternative to the silicon that is typically used in solar panels. More details are at [https://www.sdsc.edu/News%20Items/PR20200622\\_solar\\_cell.html](https://www.sdsc.edu/News%20Items/PR20200622_solar_cell.html).

Collaborators included Huan Tran (Georgia Institute of Technology) and Ngoc Tuoc (Hanoi University of Science and Technology) in addition to SDSC and TACC high-performance computing resources allocated via XSEDE.

Now in its 17<sup>th</sup> year, the annual HPCwire Readers' and Editors' Choice Awards are determined through a rigorous nomination and voting process that includes intensive reviews and selections by HPCwire's editorial team. The awards represent recognition from the HPC community and have become a prominent feature of the publication. These accolades are announced each year to kick off the annual Supercomputing Conference.

"Each year we look forward to connecting with our HPC community while recognizing exceptional industry innovation at the SC conference," said Tom Tabor, CEO of Tabor Communications and 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 Readers' and Editors' Choice Awards."

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