

The University of Reims Champagne-Ardenne Announces GPU Computing Application Lab

The most powerful GPU-accelerated HPC Center in France to provide extensive new support for development of GPU-accelerated applications

San Jose, Calif. - March 20, 2015 - The University of Reims Champagne-Ardenne today announced its *Application Lab*, a new resource dedicated to advancing the development and proliferation of GPU accelerated computing for scientific research.

The lab will offer high-level support to academic and industrial researchers who are using GPU accelerated computing technology for their next-generation research. Staffed by a team with expertise in the NVIDIA® CUDA® parallel programming model, the OpenACC parallel programming standard, NVIDIA GPUDirect™ RDMA technology, and NVIDIA OptiX™. The lab will provide training and technical assistance to help researchers accelerate their algorithms and applications using GPU-powered computing systems. The lab is supported by the Champagne-Ardenne Regional Council and Reims Metropole.

The University of Reims was the first university in France to be named an NVIDIA CUDA Research Center for its commitment to utilizing GPU-accelerated computing across multiple research fields. The ROMEO cluster, installed in the Champagne-Ardenne Region in 2014, is the most powerful NVIDIA Tesla cluster in France, and the second most powerful in Europe. Powered by 260 NVIDIA Tesla® K20X GPU accelerators, the 130-node BullX system delivers 254.9 teraflops of performance based on the Linpack benchmark. Not only ranked the 151th most powerful supercomputer in the world, according to the 2013 TOP500 list¹, ROMEO was also the fifth most energy efficient on the 2013 Green500 list².

For years, the ROMEO High Performance Computing Center provided hosted computing services for companies in the region, leveraging its expertise in computational fluid dynamics, farm rendering and data analytics. Reims University will also utilize its HPC ecosystem and experience, as well as the new application lab, to help prepare algorithms and applications for tomorrow's exascale computing systems.

At the NVIDIA [2015 GPU Technology Conference](#) (San Jose, CA, March 17-20, 2015), Professor Michaël Krajecki, head of the ROMEO HPC Center and the CReSTIC ICT Laboratory, presented his work using a GPU-accelerated biochemistry application for drug design based on Non Covalent Interactions and molecular docking. The presentation took place on Tuesday, March 17 at 16:30, Room 212A: <http://registration.gputechconf.com/quicklink/6EYCTAn>.

¹ TOP500 list, november 2013 - <http://www.top500.org>

² GREEN500 list, november 2013 - <http://www.green500.org>

About the University of Reims Champagne-Ardenne (URCA) and the ROMEO HPC Center

With the ROMEO cluster (151th Top500, 5th Green500, 260 GPU K20X cards), the ROMEO HPC Center delivers high performance computing resources for both industrial and academic researchers in the Champagne-Ardenne region, along with an entire ecosystem of services like secured storage space, specific software, and user support, as well as in-depth expertise in mathematics and computer science, physics and engineering sciences, and multiscale molecular modeling. Fundings from the European Regional Development Fund (ERDF), France, the Champagne-Ardenne Regional Council and Reims Metropole has enabled URCA to introduce the supercomputer ROMEO, which is a member of the French tier-1.5 HPC Network. For more information, visit <https://romeo.univ-reims.fr/aboutUs>.

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