



PRESS RELEASE 15/2015

Team TUMuch Phun of Technische Universität München Wins High Performance Linpack Award at the Student Cluster Competition of SC15

Munich/Germany, November 25, 2015 – Team TUMuch Phun is the winner of the Student Cluster Competition’s (SCC) High Performance Linpack (HPL) award of the Supercomputing Conference 2015, which took place in Austin, Texas last week. The team of six bachelor students from the Technische Universität München (TUM), which was the only European representative amongst the 9 qualifying teams, achieved 7.134 Teraflops on the HPL benchmark run on a tailored RSC PetaStream cluster. TUM computer science students Daniel Gallenberger, Gregor Matl, Sharru Moeller, Felix Späth, Felix Thimm, and Michael Zellner thus secured one of only two trophies given away at this competition, which was part of the SC15 Student Program. In the “Overall” category, the team secured an excellent third place.

“We made it! We are the first Europeans to join the circle of SCC awardees! Now we will be on the prestigious list of SCC award winners for ever!”, rejoiced Gregor Matl, captain of team TUMuch Phun (pronounced “too much fun”) after the winners were announced. “All the intense weeks of getting prepared for the challenge – we even entirely missed the Munich Oktoberfest this year! –, the adrenaline rush causing situations on site, and the lack of sleep: It was all worth it! This was a simply superb experience for all of us,” affirmed Matl excitedly.

In the run-up to the SC challenge, the TUM students had received comprehensive guidance and support by their mentors Sebastian Rettenberger and Roland Wittmann of the TU München’s Scientific Computing department. The two high-performance computing (HPC) experts are frequent users of the SuperMUC infrastructure of the Leibniz Supercomputing Centre (LRZ) thus having extensive experience working with HPC systems and with optimizing and parallelizing HPC codes. „It has been a sheer pleasure working with these highly motivated and equally talented students,“ reflected Sebastian Rettenberger who also pointed out that the team’s name („too much fun“) says it all: „Had there been a fan competition, I have no doubt that team TUMuch Phun would have won this title too!“

The Student Cluster Competition of the SC Student Program is designed to introduce the next generation of students to the HPC community. In a real-time, non-stop, 48-hour challenge, the teams of six undergraduates raced to complete a real-world workload across a series of scientific applications on their compute cluster, had to demonstrate knowledge of system architecture and application performance, and impress HPC industry judges. The compute cluster had to meet a 3120-Watt power limit throughout the entire competition – with strict penalties enforced. Team TUMuch Phun worked on a PetaStream cluster provided by the Russian supercomputer vendor RSC. It comprised eight Intel Xeon Phi co-processors and was tailored by RSC to meet the strict power restriction and limited infrastructure during the competition.

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Team TUMuch Phun was proudly co-sponsored by GCS which contributed to the team's travel expenses. "We are very pleased about TUMuch Phun's accomplishments and congratulate the team on their success! Their enthusiasm shown throughout the challenge was simply refreshing and we hope that they will be an inspiration for more computer science students. GCS will be delighted to continue supporting young and bright talent in the field of HPC," confirms Dr. Claus Axel Müller, Managing Director of GCS.

In addition to team TUMuch Phun, this years SCC line-up included:

- Team Desert Heat, Arizona Research Computing, United States
- Illinois Institute of Technology, United States
- National Tsing Hua University, Taiwan
- Northeastern University, United States
- Pawsey Supercomputing Centre, Australia
- Universidad EAFIT, Colombia
- University of Oklahoma, United States
- and
- Team Diablo of the Tsinghua University, China, who claimed the title as Overall Winner of the 2015 Student Cluster Competition (<http://sc15.supercomputing.org/conference-program/student-programs/sc15-student-cluster-competition>)



Team TUMuch Phun of Technische Universität München is the winner of the HPL-Benchmark competition of the Student Cluster Challenge at SC15. From left: Padma Raghava (SC15 Awards Vice Chair), Gregor Matl, Sharru Moeller, Felix Späth, Hai Ah Nam (Student Cluster Competition Chair), Daniel Gallenberger, Felix Thimm, Michael Zellner, and Franck Cappello (SC15 Awards Chair). © GCS

About GCS: The Gauss Centre for Supercomputing (GCS) combines the three national supercomputing centres HLRS (High Performance Computing Center Stuttgart), JSC (Jülich Supercomputing Centre), and LRZ (Leibniz Supercomputing Centre, Garching near Munich) into Germany's Tier-0 supercomputing institution. Concertedly, the three centres provide the largest and most powerful supercomputing infrastructure in all of Europe to serve a wide range of industrial and research activities in various disciplines. They also provide top-class training and education for the national as well as the European High-Performance Computing (HPC) community. GCS is the German member of PRACE (Partnership for Advance Computing in Europe), an international non-profit association consisting of 25 member countries, whose representative organizations create a pan-European supercomputing infrastructure, providing access to computing and data management resources and services for large-scale scientific and engineering applications at the highest performance level. www.gauss-centre.eu

GCS has its headquarters in Berlin/Germany.

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