Tokyo Tech

OAK RIDGE National Laboratory

CSCS Centro Svizzero di Calcolo Scientifico Swiss National Supercomputing Centre

ETH zürich

Accelerated Data and Computing Workshop

Theme: Performance Portability and

Resource Management to Accommodate Data Science

Organized by CSCS, Lugano, Switzerland
June 12-14, 2016

Practical Information

Site of the workshop

The Accelerated Data Analytics and Computing (ADAC) Workshop Switzerland 2016, organized by CSCS, will be hosted at Hotel de la Paix on Sunday, June 12, and at the Università della Svizzera italiana on Monday, June 13 and Tuesday, June 14, 2016.

Hotel de la Paix
Via Giuseppe Cattori 18
CH-6900 Lugano
Tel: +41 (0)91 960 60 60
Fax: +41 (0)91 960 60 66

Università della Svizzera italiana
Via Giuseppe Buffi 13
CH-6904 Lugano
Tel.: +41 (0)58 666 40 00
Fax: +41 (0)58 666 46 47

How to get to Lugano

By Plane
Lugano airport is situated 15 minutes away from the city centre. Flights to Lugano are available from Zurich or Geneva airport with Swiss International Airlines and Ethiad Regional.
All major European and international airlines operate direct flights to **Milano Malpensa airport** several times per day. Shuttle busses (Giosy Tours, Lugano Servizi/AddaTours and SPT - Società Privata Trasporti) run regularly between Malpensa and Lugano. The shuttle trip takes 50 minutes and leaves you in front of the Lugano main train station. You may visit the following page to view the time schedule and make your reservation: Malpensa Shuttle.
Zurich airport is a 3 hour train ride from Lugano that will take you through central Switzerland and through winding tunnels to cross the Alps. Well worth the trip for rail enthusiasts.

How to get to Hotel de la Paix

By Bus
The Hotel can be reached by bus from Lugano main train station.
Get bus n.2 (direction "Paradiso") get off at "Santa Birgitta" (5 stops) and you will find the Hotel at 50 m. on the left side.

Hotel de la Paix

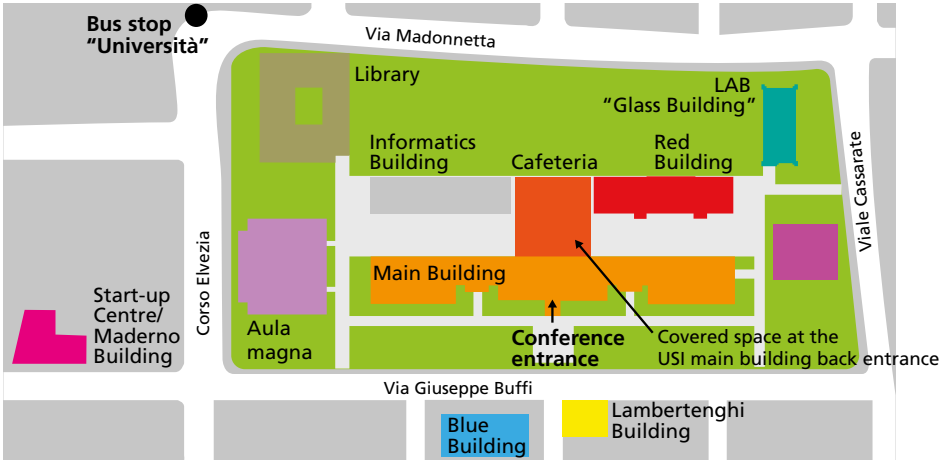
The Hotel de la Paix is a four stars hotel located close to Lake Lugano and at walking distance from the city center. All rooms are furnished in an elegant style and provided with bathroom, shower, WC, hairdryer, direct telephone lines, minibar, colour TV, radio, safe and air conditioning. Its multilingual staff will be delighted to welcome you with warmth and cordiality.

How to get to Campus

The Campus can be reached by bus from Hotel de la Paix.
Take bus n.2 (direction "Castagnola") get off at "Stazione FFS" (5 stops), then get the bus n.6 (direction "Cornaredo") and get off at "Università" (3 stops).

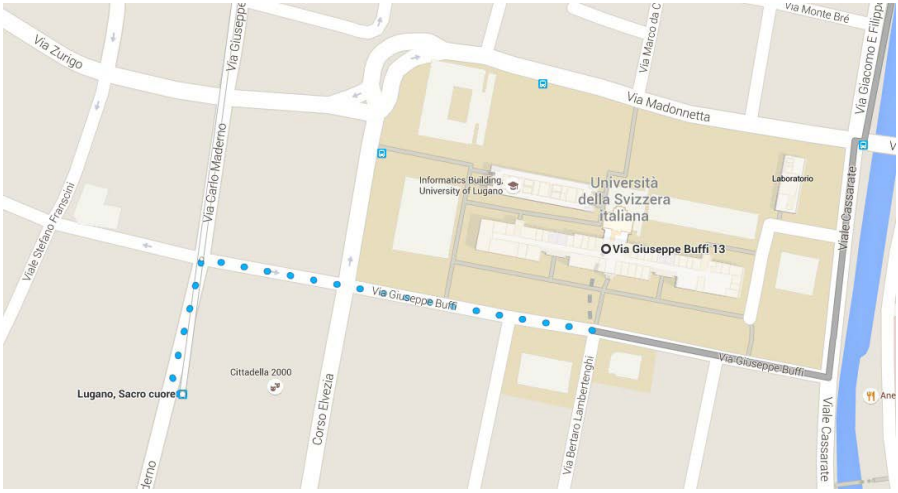
The University Campus

Located on the outskirts of the city center, the campus is founded on the site of the former city hospital. Entirely restructured, today the main building accommodates the administrative and academic offices of the Faculties of Economics and Communication Sciences, some classrooms, computer rooms, a cafeteria, and the Auditorium. The grounds surrounding the main building include a number of functional and modern units, fully furnished with the latest technical equipment and infrastructure: the Library, the Aula magna, the 'Red Building' with classrooms, the building of the Faculty of Informatics and the Technological Laboratory (LAB).



How to get to CSCS

Get bus n.7 (direction "Pregassona") from Sacro Cuore bus station and get off at "Stadio" (6 stops).



Workshop registration

Registration badge and workshop material can be collected onsite at the registration desk according to the following timetable:

Sunday, June 12 at 16.00 – 18.00 Hotel de la Paix
Monday, June 13 at 8.30 – 16.00 Università della Svizzera italiana

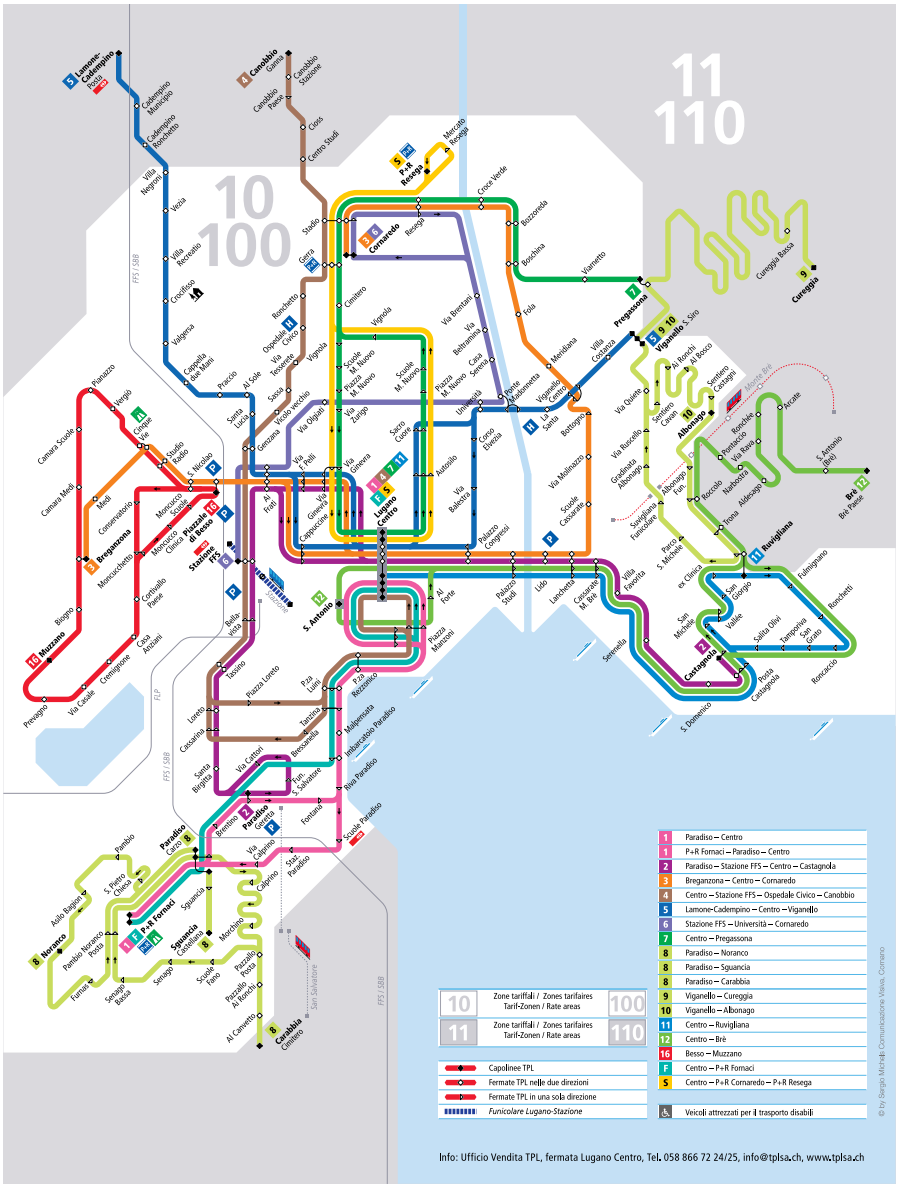
Internet & WiFi facility

WIFI is available through out the entire campus. You may access it by using the following credentials:

Username: guest
Password: guest

Map of Lugano

Map of the Lugano Public Transportation



Sunday, June 12, 2016

4:00 p.m.	**Registration Opens**, *Hotel de la Paix*
4:30 p.m.	**Welcome** – Thomas Schulthess (ETH Zurich), *Hotel de la Paix*
4:45 p.m.	**Keynote** - How to be Bayesian in the Big Data Era – Kerrie Mengersen (Queensland University of Technology)
	Abstract: Bayesian methods are now part of the standard toolkit for data analysts. These methods include flexible models to describe complex data and population structures, a wide range of liberal and efficient computational algorithms, and appealing inferential insights. However, there is an increasing discussion about how these methods, and their relative appeal, perform in the context of big data. This presentation will provide a review of the issues, the debate and the partial resolutions that have been discussed. The future of Bayesian methods, Bayesian computation and Bayesian thinking will be considered in the hope of stimulating further discussion from the perspective of ADAC participants.
5:45 p.m.	Institute Overview and Vision – Thomas Schulthess (ETH Zurich), Jeffrey Nichols (Oak Ridge National Laboratory), Satoshi Matsuoka (Tokyo Institute of Technology)
6:15 p.m.	**Discussion**
6:30 p.m.	Break
7:00 p.m	**Networking**
8:00 p.m.	**Dinner**, *Hotel de la Paix*

Monday, June 13, 2016

Breakfast at hotel, *Hotel de la Paix*	
8:30 a.m.	**Welcome and announcements** – Thomas Schulthess (ETH Zurich), *Università della Svizzera italiana*
8:35 a.m.	**Session 1: Applications**
8:35 a.m.	Update from Working Group
8:45 a.m.	Past Algorithms and Future Libraries for Efficient Nonbonded Particle Simulations - Erik Lindahl (Stockholm University & KTH)
9:15 a.m.	How to think exascale: Modernizing the LAPACK and Scalapack Libraries– Azzam Haidar (University of Tennessee)
9:45 a.m	The Development of the Electronic Structure Code LSDalton and its Library Requirements– Thomas Kjaergaard (Aarhus University)
10:15 a.m.	Break
10:45 a.m.	Beyond ppOpen-HPC: Applications and Algorithms in the Post-K/Post-Moore Era - Kengo Nakajima (University of Tokyo)
11:15 a.m.	Non Orthogonal Configuration Interaction on the Next Generation of Supercomputers - Remco Havenith (University of Groningen)
11:45 a.m.	Towards Large-Scale Quantum Chemistry with Second-Generation Density Matrix Renormalization Group (DMRG) - Stefan Knecht (ETH-Zurich)
12:15 a.m.	**Working Lunch**, *Covered space at the USI main building back entrance* *Breakout Groups Meet at 1:00 after Eating Lunch*
12:45 a.m.	Working Groups: Applications – *Room A32* Performance Tools – *Room A33* Resource Management – *Room A34*
2:00 p.m.	**Session 2: Performance Tools**
2:00 p.m.	Update from Working Group
2:15 p.m.	Understanding Portability of a High-Level Programming Model on Diverse HPC Architectures– Seyong Lee (Oak Ridge National Laboratory)
2:45 p.m.	Performance Portability of Stencil Kernels – Tobias Gysi (ETH-Zurich)
3:15 p.m.	Break
3:30 p.m.	Performance Modeling for Selected Scalable Applications - Paul F. Baumeister, (Juelich)
4:00 p.m.	**Panel – Discussion – Strategic Vision for Accelerated Systems**
	Panel Moderators: Thomas Schulthess, Jeff Nichols Panelists: Mike Heroux, Sandia National Laboratories / Doug Kothe, Oak Ridge National Laboratory / Satoshi Matsuoka, Tokyo Institute of Technology / Dirk Pleiter, Juelich
5:30 p.m.	End of Day
5:30 p.m.	Dinner on Your Own

Tuesday, June 14, 2016

Breakfast at hotel, *Hotel de la Paix*	
8:30 a.m.	**Announcements** – Thomas Schulthess (ETH Zurich), *Università della Svizzera italiana*
8:35 a.m.	**Session 3: Resource Management**
8:35 a.m.	Update from Working Group
9:00 a.m.	Workflows, Pegasus and Their Interactions with HPC Systems– Ewa Deelman (University of Southern California)
9:30 a.m.	Shifter: Containers in HPC Environments- Lucas Benedicic (ETH-Zurich)
10:00 a.m.	Break
10:30 a.m.	Operating Experience with SSD and GPUs – Toshio Endo (Tokyo Institute of Technology)
11:00 a.m.	Resource Management from HPC to the Cloud: Do You Manage Resources or Do They Manage You? – Dave Hancock (Indiana University)
11:30 a.m.	**Working Lunch**, *Covered space at the USI main building back entrance* **Breakout Groups Eat Lunch Together and Meet**
	Working Groups: Applications – *Room A32* Performance Tools – *Room A33* Resource Management – *Room A34*
1:30 p.m.	**Wrap up Session for ADAC Core Team**
	– Review – Next Steps
3:00 p.m.	End of Workshop
3:30 p.m.	**Tour of CSCS**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Web Page of the ADAC Workshop
http://bit.ly/adac_agenda

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