

JUQUEEN Porting and Tuning Workshop

3–5 February 2014

JSC

Talks marked with a * are for the special interest group on computational fluid dynamics and will take place in the computer lab. All other talks will be in the Rotunda (Monday and Tuesday) or the lecture hall (Wednesday, 16.3 006). The hands-on sessions will take place in the computer labs (16.3 021 and 16.3 004) where the participants will be assigned to.

Monday, 03. February

08:45 – 09:00	(15')	Registration
09:00 – 09:15	(15')	Norbert Attig, JSC <i>Welcome and introduction</i>
09:15 – 09:45	(30')	Michael Stephan, JSC <i>BG/Q Hardware</i>
09:45 – 10:30	(45')	Wolfgang Frings, JSC <i>Best practices</i>
10:30 – 11:00	(30')	Coffee break
11:00 – 12:00	(60')	Markus Geimer, JSC <i>Performance tools and debuggers</i>
12:00 – 12:30	(30')	Paul Gibbon, JSC <i>Support structure at JSC</i>
12:30 – 13:30	(60')	Lunch break (room Daubenrath)
13:30 – 17:00	(210')	Hands-on session
13:30 – 14:00	* (30')	Paolo Crosetto, JSC <i>Introduction to the CFD part</i>
15:00		Coffee break
16:00 – 17:00	* (60')	CFD group <i>Presentation of the CFD codes</i>
17:00 – 17:30	(30')	Feedback and first experiences
17:39 – 17:53		Bus SB11 , 'FZJ Seecasino' – Jülich 'Neues Rathaus'
18:30 –		Social event (dinner)

The talks on days two and three are optional instead of the hands-on session.

Tuesday, 04. February

08:13 – 08:33		Bus SB11 , Jülich 'Neues Rathaus' – 'FZJ Seecasino'
09:00 – 12:30	(60'-210')	Hands-on session
09:00 – 09:30	(30')	Thorsten Hater, JSC <i>Multithreading with OpenMP</i>
09:30 – 10:15	(45')	Christoph Pospiech, IBM <i>Memory hierachy, transactional memory, speculative execution</i>
10:15 – 10:45	(30')	Wolfgang Frings, JSC <i>Parallel I/O</i>
10:45 – 11:00	(15')	Coffee break
11:00 – 11:30	(30')	Stefan Krieg, JSC <i>Vectorisation using QPX intrinsics</i>
12:30 – 13:45	(75')	Lunch break (room Daubenrath)
13:45 – 17:00	(195')	Hands-on session
13:45 – 14:15	* (30')	Charles Moulinec, STFC <i>Code_Saturne: General Presentation & Performance</i>
15:00		Coffee break and group photo
17:00 – 17:30	(30')	Feedback session
17:39 – 17:53		Bus SB11 , 'FZJ Seecasino' – Jülich 'Neues Rathaus'

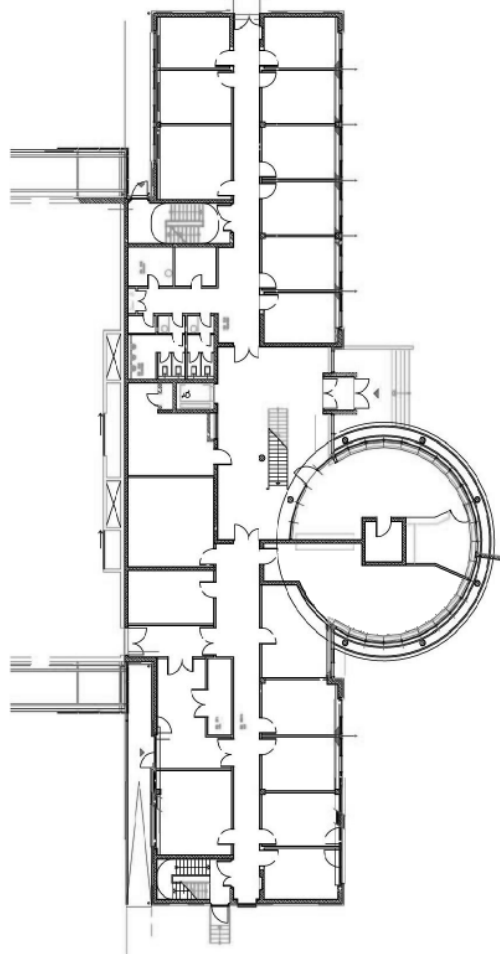
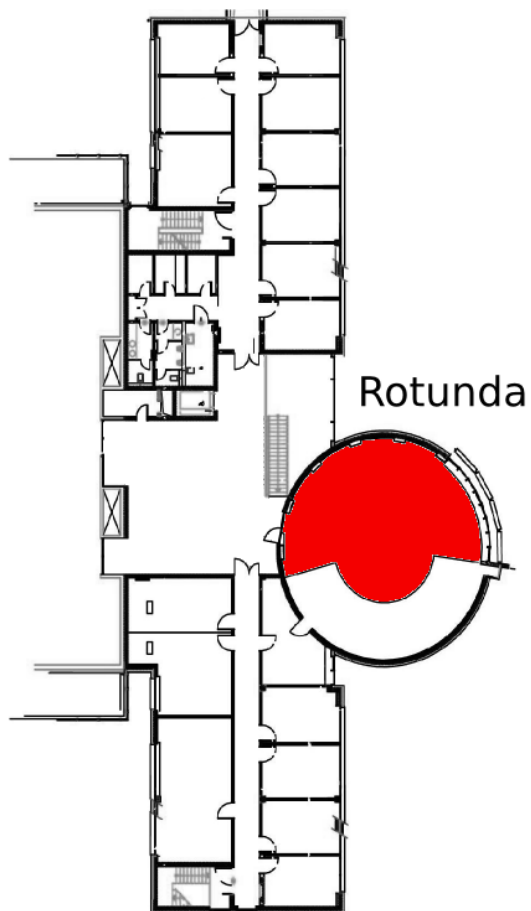
Wednesday, 05. February

08:13 – 08:33		Bus SB11 , Jülich 'Neues Rathaus' – 'FZJ Seecasino'
09:00 – 12:30	(90'-210')	Hands-on session
09:00 – 09:45	(45')	Christoph Pospiech, IBM <i>Memory prefetching, L2 atomics</i>
09:45 – 10:15	(30')	Stefan Krieg, JSC <i>Low-level networking API (SPI)</i>
10:45 – 11:00	(15')	Coffee break
11:00 – 11:30	(30')	Dirk Pleiter, JSC <i>Realising active storage concepts on BlueGene/Q</i>
11:30 – 12:00	* (30')	Jens Henrik Göbbert, RWTH Aachen <i>Accelerating Turbulence Computations on JUQUEEN</i>
12:00 – 12:30	* (30')	Corentin Carton de Wiart, Cenaero <i>HPC capabilities of the discontinuous Galerkin method and application to scale-resolving simulations of industrial flows</i>
12:30 – 13:45	(75')	Lunch break (room Daubenrath)
13:45 – 17:00	(195')	Hands-on session
14:15 – 15:00	(45')	Feedback and discussion
15:00		Coffee break

Ground Floor 16.3



First Floor 16.4



Ground Floor 16.4