

Sunday, July 8		Key
16:00	Registration Opens	Mentoring
18:00	Instructions on Mentoring Group 1: Students Group 2: Staff/Presenters	General Session and Science Talks
19:00-21:00	Welcome Reception	Hands-on Session

Monday July 9		
08:15-08:45	<i>Testing of course accounts</i> <i>Participants may also register at the school venue on Monday</i>	
08:45-09:00	Welcome	
09:00-10:00	Keynote Exascale Computing: Challenges and Opportunities for Fusion Energy Research Frank Jenko, IPP, Germany & UCLA, US	
10:00-10:45	Parallel Programming Methodologies John Urbanic, PSC, US	
10:45-11:15	<i>Break</i>	
11:15-12:30	Introduction to Mentoring; Introduction of Participants	
12:30-13:30	<i>Lunch</i>	
13:30-17:30	Parallel Programming: Classic Track MPI & OpenMP David Henty, EPCC, UK	Parallel Programming: Accelerator Track John Urbanic, PSC, US <i>Coffee break around 3pm</i>
17:30-20:30	Dinner buffet & Electronic Poster Session I A buffet style dinner will be provided at the university.	

Tuesday, July 10		
09:00-09:55	Overview of PRACE, RIKEN, SciNet, XSEDE	
10:00-10:40	HPC Challenges in Weather Forecast Research: Data-Assimilation Science Takemasa Miyoshi, RIKEN, Japan	HPC Challenges in Materials Science Takeo Hoshi, Tattori University, Japan
10:40-11:00	<i>Break</i>	
11:00-11:40	Programming Models: Task Parallelism and PGAS Mitsuhisa Sato, RIKEN, Japan	Workflow Tools Scott Callaghan, University of Southern California, US
11:45-12:30	Parallel Programming: Classic Track MPI & OpenMP David Henty, EPCC, UK	Parallel Programming: Accelerator Track John Urbanic, PSC, US
12:30-13:30	<i>Lunch</i>	
13:30-17:30	Parallel Programming: Classic Track MPI & OpenMP David Henty, EPCC, UK	Parallel Programming: Accelerator Track John Urbanic, PSC, US <i>Coffee break around 3pm</i>
17:30-20:30	Dinner buffet & Electronic Poster Session II A buffet style dinner will be provided at the university.	

Wednesday, July 11		
09:00-09:40	HPC Approaches in Life Science I Erik Lindahl, Univ. Stockholm, Sweden Tom Cheatham, Univ. Utah, US	Challenges for High Order Simulations for Seismology Michael Bader, TUM, Germany
09:45-10:30	HPC Approaches in Life Science II Erik Lindahl, Univ. Stockholm, Sweden Tom Cheatham, Univ. Utah, US	Parallel I/O Elsa Gonsiorowski, LLNL, US
10:30-11:00	Programming Challenge: Bring your own code	
11:00-11:30	<i>Break</i>	
11:30-12:30	Mentoring Session	
12:30-13:30	<i>Lunch</i>	
13:30-17:30	Scientific Visualization Marcelo Ponce, SciNet, Canada	HPC Python Programming Ramses van Zon, Univ. Toronto, Canada
17:30	Social Event & Dinner	

Thursday, July 12		
09:00-09:40	HPC Software Engineering Erik Lindahl, Univ. Stockholm, Sweden	
09:45-11:00	Single Node Optimization I Thomas Röhl, Univ. Erlangen, Germany	
11:00-11:30	<i>Break</i>	
11:30-12:10	Mentoring Session	
12:10-13:10	<i>Lunch</i>	
13:10-14:40	Single Node Optimization II Thomas Röhl, Univ. Erlangen, Germany	
14:40-17:30	Parallel Performance Analysis and Optimization I Ilya Zhukov, JSC, Germany	<i>Coffee break around 4pm</i>
17:30	Social Event & Dinner	

Friday, July 13		
09:00-09:40	Parallel Performance Analysis and Optimization II Ilya Zhukov, JSC, Germany	
09:45-11:00	Conclude Parallel Programming Challenge, Announce Winners	
11:00-11:30	<i>Break</i>	
11:30-12:30	Mentoring Session	
12:30-13:30	<i>Lunch</i>	
13:30-16:30	Big Data and Deep Learning with Spark and TensorFlow John Urbanic, PSC, US	Software Engineering Elsa Gonsiorowski, LLNL, US
Summer School ends at 4:30 PM		