

# Summary report of the 1<sup>st</sup> BalticGrid Summer School

## *The aim of the school*

The main aim of the BalticGrid Summer Schools is to educate the end users in the field of the Grid computing in the Baltic region. Also, the schools introduce the different applications and using cases of the Grid, bind together potential user of the Grid and computing facilities and give the overview of the current development of the Grid in the region.

The first BalticGrid Summer School was held at the Tartu University, Tartu, Estonia, from July 4 to July 8 2006. The school was arranged in collaboration with the BalticGrid partners in Estonia (EENet, NICPB) and Tartu University.

## *Program*

The summer school covered 5 days of the lectures and practical work. The first day was a general introduction to the Grid and distributed computing. The tutorial lectures and practical work will cover the next 3 days. The last day of the school will be focused on some BalticGrid aspects -- its infrastructure and applications.

20% of time of the school was spent for the general lectures, 40% for the education lectures in the Grid topic and 40% for practical work in computer class. Appendix 1 presents the exact time schedule of the school.

## *Participants*

The school has 41 participants from the Baltic States, Poland and Germany; 5 main lecturers from EGEE2 and BalticGrid project partners; 3 invited lecturers from KTH in Sweden, from the Ministry of the Education and Research of Estonia and from Tartu University and 3 local organizers at the EENet and NICPB.

14 participants were from Estonia, 1 from Germany, 10 from Latvia, 11 from Lithuania and 5 from Poland.



The photo-gallery of the school is presented on the web page:

<http://mullitaja.eenet.ee/~hardi/BGSummerSchool2006/>

### ***Summary of the evaluation of the participants***

The participants of the school had the possibility to fill the evaluation forms of the school. 21 filled forms were collected in the end of the school, 10 of them were filled anonymously. The following table presents the results.

<b>Average rating</b>		
<b>Topic</b>	<b>Average</b>	<b>Stand. dev.</b>
Day 1 (Introductory)	3.81	1.17
Day 2 (EGEE)	4.1	0.83
Day 3 (EGEE)	3.86	0.85
Day 4 (EGEE)	4.14	1.01
Day 5 (BalticGrid)	4.57	0.6
Tutorial rooms & facilities	4.57	0.68
Information prior the event	4.52	0.6
Information during the event	4.57	0.6
Materials	3.86	0.85
Tutors' skills and knowledge	4.38	0.67
Social event	4.43	0.6
<b>Total</b>	<b>4.26</b>	<b>0.77</b>

### ***Budget of the school***

The total cost of the school was 9500 EUR. The budget was shared between five main articles: accommodation, meals and coffee breaks, the reception of the school, travel cost of the lecturers and arrangement costs. The income comes from the direct support of the BalticGrid partners and the participation fees of the school.

### ***Acknowledgments***

The organizers of the school thank the BalticGrid project for the main support of the school. We thank EGEE2 to support Emidio Giorgio, Mike Mineter and Gabor Kecskemeti to give their lecturers in the school. We thank EAS BioSpinno2 program and EITSA to support some students to participate in the school.

## Appendix 1:

### The program of the school

#### Day 1 (July 4): Introduction to Grid and distributed computing

9:00 **Registration** (The lecture building, Liivi str. 2)  
10:00 Opening words, Lennart Johnsson (KTH, Sweden)  
10:15 Welcome from the Ministry of Education and Research of Estonia  
10:30 Grids: Enabler of 21st century Science and Engineering, Lennart Johnsson (KTH, Sweden)  
11:30 COFFEE  
11:50 Distributed computing and Grid in bioinformatics, Jaak Vilo (Tartu University / Egeen AS, Estonia)  
13:00 LUNCH  
14:00 Applications of the Grid at NICPB, Andi Hektor (NICPB, Estonia)  
15:00 Grid and networking at EENet, Mihkel Kraav (EENet, Estonia)  
15:30 COFFEE 18:00 Summer School Reception on [the river boat MS Pegasus](#) (meeting time 17:30-18:00, check the map on the invitation)

#### Day 2 (July 5): General and practical introduction to EGEE (Mike Mineter & Emidio Giorgio, University of Edinburgh & Sede INFN Catania)

##### Introduction to Grids and to EGEE

09:00 Introduction  
09:15 What is Grid Computing?  
10:00 An overview of the EGEE project and middleware  
10:30 Authentication, Authorisation and Security  
11:00 COFFEE

##### Practical - introduction to the EGEE middleware

11:15 Using a certificate and simple job submission  
12:15 Information systems on EGEE  
13:00 LUNCH  
14:00 Data management  
15:30 TEA  
15:45 Putting it all together!  
16:30 MyProxy and Portals: using GENIUS on GILDA  
17:15 Closing discussion

#### Day 3 (July 6): EGEE practical day: from middleware to applications (Mike Mineter, Emidio Giorgio, University of Edinburgh & Sede INFN Catania)

09:15 Metadata: an introduction to AMGA  
10:00 Using R-GMA to monitor applications  
11:00 COFFEE  
11:15 More advanced workload management  
13:00 LUNCH  
14:00 Porting your applications to the GILDA grid  
15:30 TEA  
15:45 Porting applications, continued  
17:00 End-of-day discussion

#### Day 4 (July 7): Applications and Web Services on the Grid (Gabor Kecskemeti, MTA SZTAKI) Porting applications to grids

09:00 "Grid-enabling" applications using P-GRADE and GEMMLCA  
11:00 COFFEE  
11:15 P-GRADE and GEMMLCA continued

13:00 LUNCH **Web Services and Grids**  
14:00 An introduction to Web Services  
14:30 Practical: Web services  
15:30 TEA  
15:45 Web services and grid computing  
16:45 Review of the tutorial and discussion

### **Day 5 (July 8): BalticGrid: infrastructure and applications**

10:00 BalticGrid infrastructure, Lauri Anton (EENet, Estonia)  
10:30 Support for new applications in BalticGrid, Tomasz Szepieniec (IFJPAN, Poland)  
11:00 Current applications on the BalticGrid, Andi Hektor (NICPB, Estonia)  
11:30 COFFEE  
11:50 Some ideas for Grid applications, Ilja Livenson (NICPB, Estonia)  
12:30 LUNCH  
13:30 Migrating Desktop, Mirosław Kupczyk (PSNC, Poland)  
15:30 COFFEE  
15:50 Grid application performance monitoring with OCM-G and G-PM, Tomasz Szepieniec (IFJPAN, Poland)  
17:00 Closing words