



ACET

29 June 2009

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University of Reading

- ❑ Among the top 200 universities in the world
- ❑ Among top 10 research intensive Universities in UK
- ❑ 15-17,000 students, more than $\frac{1}{4}$ OS
- ❑ Strong international research collaborations





“Scientific discovery and advancement of science through advance computing”

ACET MISSION



ACET Admin Team:

Prof. Vassil Alexandrov,
MSc Moscow State University,
PhD, Institute for Parallel Processing, Bulgarian
Academy of Sciences

Nia Alexandrov,
PG Programs & Professional Training Coordinator,
Sofia University of Technology

Linda Mogort-Valls,
Project Manager,
Salford University

ACET Researchers

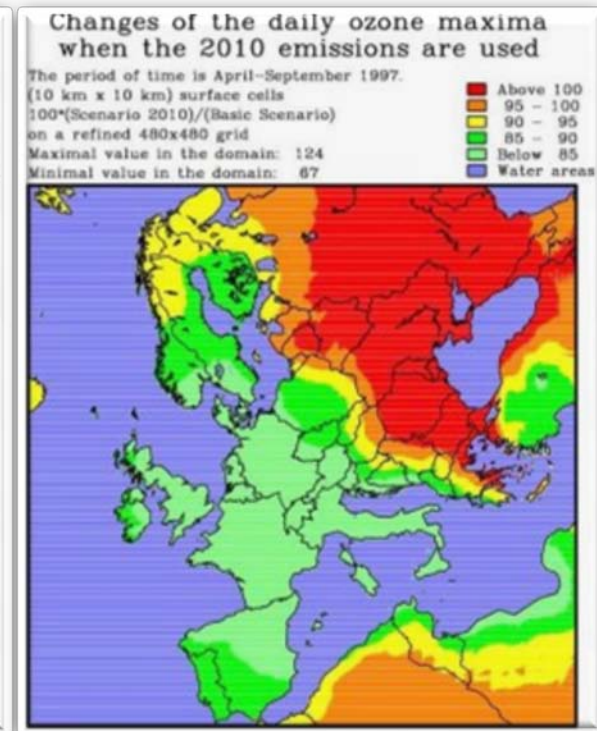
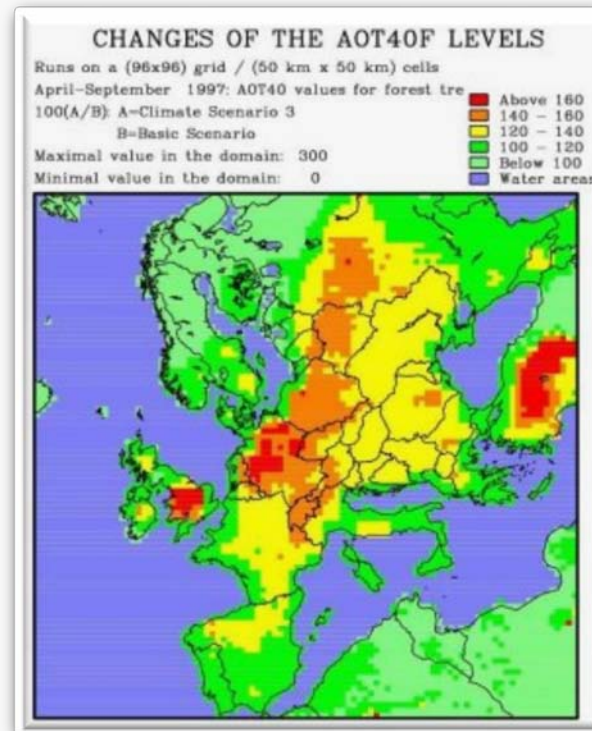
- Prof. V. Alexandrov – modelling, scalable algorithms, Monte Carlo Algorithms
- Prof. M. Baker – middleware
- Prof. P. Grindrod – modelling
- Prof. D. Kranzlmüller – Grid Computing
- 8 Visiting Professors & Researchers
- 27 researchers

Research Focus :

- Mathematical modeling of complex systems
- Scalable algorithms for large scale scientific and industrial problems
- Collaborative Environments
- Middleware to support parallel and distributed applications
- Methodology and software for e-learning

Mathematical modeling and Scalable algorithms

Developing novel
mathematical methods
and scalable algorithms
needed to tackle large
scale scientific and
industrial problems



Collaborative Environments and E-learning Methodology

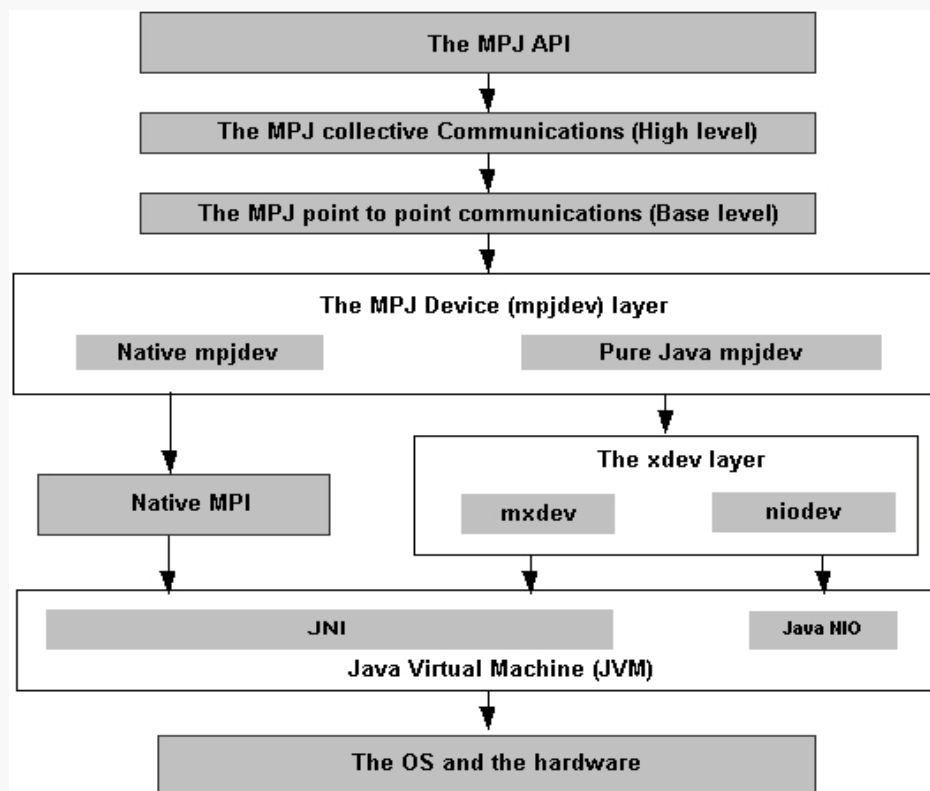


Creating collaborative
Environments for
computational science
scientific visualisation,
and e-learning



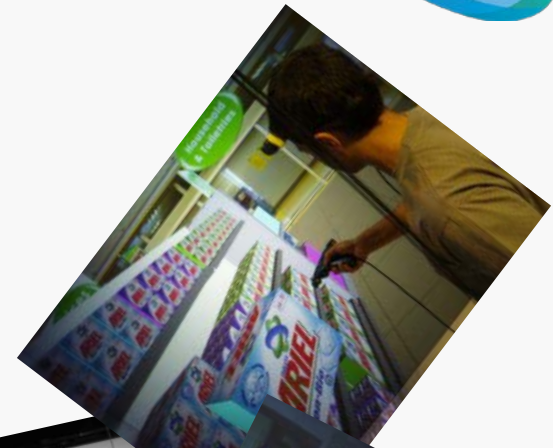
Middleware

Developing middleware to support parallel and distributed applications, in particular tools based on emerging Web 2.0 technologies, the Semantic Web, and other components that provide a service oriented approach



Computing Resources

- IBM JS20 Blade Centre
- IBM JS21 Blade Centre – 3rd largest academic supercomputer in UK
- CAVE and PowerWall



Postgraduate Studies:

Taught Programs:

- Advanced EU MSc in Network Centred Computing
- Erasmus Mundus Joint MSc in Network and e-Business Centred Computing

By Research:

- MSc in Computational Science by Research
- MPhil, PhD and Post Doctoral Studies

Tailored Professional Training based on teaching portfolio with over 50 subjects in six streams with research, engineering or business orientation



Advanced EU MSc in Network Centred Computing

Streams:

- High Performance Computing & Computational Science
- e-Business
- Data Communications

Objectives:

- To give students broad coverage of the technological and scientific subjects required to underpin all careers in the IT field in general, to provide in-depth study and training encompassing state of the art principles and techniques in the chosen specialist stream and to equip students with research and development skills through a substantial R&D project with industrial and/or academic significance



Erasmus Mundus Joint MSc in Network and e-Business Centred Computing

Objectives:

- To prepare the future professionals for the digital economy to be capable of understanding the technical underpinnings and business opportunities of the new economy.

Partners:

- University of Reading
- Aristotle University, Thessaloniki
- University Carlos III, Madrid



MSc in Computational Science by Research

Streams:

- High Performance Computing
- Business
- Natural Sciences

Objectives:

To develop the intellectual and practical skills of the students in recognising, formulating, defining important problems from a multidisciplinary point of view and to devise efficient techniques to solve important scientific and industrial problems on systems ranging from the local cluster to the Grid.

Collaboration

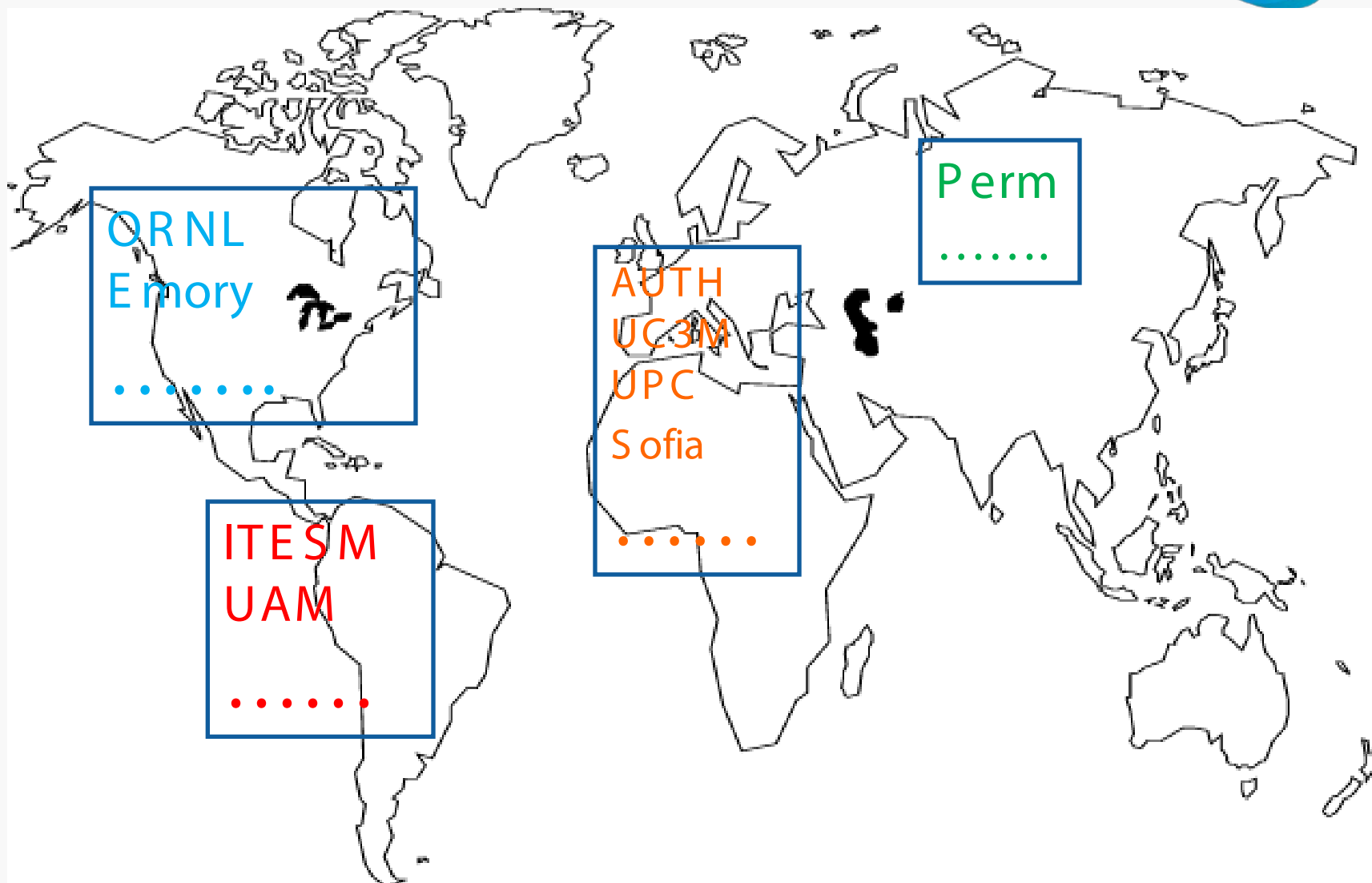
Teaching:

- Collaborative Provision
- Doctoral Centre
- Student and staff exchange

Research:

- Projects
- Professional Development
- Industrial liaisons





Contact Us:

- For Research Collaboration:
v.n.alexandrov@rdg.ac.uk
- For Course Information:
msc.acet.reading.ac.uk
- For use of the Computing Resources:
www.reading.ac.uk/ThamesBlue