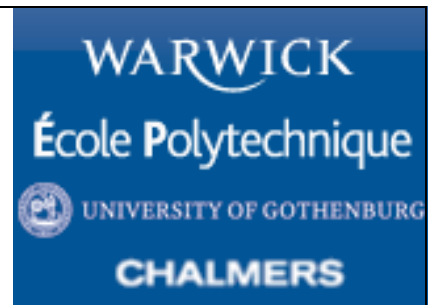


University of Warwick, École Polytechnique (Paris),  
Chalmers University and University of Gothenburg



## Masters Degree in Complex Systems Science

[www.warwick.ac.uk/go/cssm](http://www.warwick.ac.uk/go/cssm)

**Entry Sept 2010**

**Course Duration 2 years**

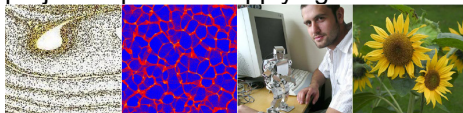
**Each student spends time in at least two of: Warwick UK, Paris France, Gothenburg Sweden.**

**Scholarships available: Overseas students apply by 4 Jan, EU students by 4 May 2010.**

A *COMPLEX SYSTEM* comprises many interacting components leading to multiple levels of collective structure and organization. Examples in nature range from bio-molecules and living cells to human social systems and the ecosphere, whilst man-made examples include the Internet, power grids or any large-scale distributed software system. It is a key challenge for our society to better understand, adapt, design and control such systems.

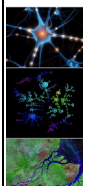
### PROGRAMME

► We aim to train the future leaders addressing the challenge of Complex Systems. We teach the tools to analyse complex systems, and students are offered a variety of research project experience applying them.



### PARTNERS AND MOBILITY

► We offer an exceptional cross-disciplinary environment and experience, with the programme based around three leading research centres:



*Centre for Complexity Science* (at Warwick);  
*Complex Systems Network* (based in Paris);  
*Complex Adaptive Systems* (in Gothenburg).

► Mobility between these centres across Europe is a key aspect of the programme. All students spend extended time at (at least) two of the centres, gaining experience of working in Europe across national boundaries.

► The *Complex Systems Society* is an associated partner providing professional accreditation.

### COURSE CONTENT

► First year core courses cover Dynamical Systems, Numerical Simulation, Informatics, Biological Modelling.

Options range over Control, Optimisation, Game Theory, Stochastic Processes, Quantifying Complexity, Models of Ecology, Transport & Diffusion.

Students complete a short research project in the summer.

► Second year students take an individual study plan drawn from more specialised options ranging across

Collective Behaviour, Biological Systems, Information & Neuro- science, Robotics and more,

followed by six months research for their Masters Thesis.



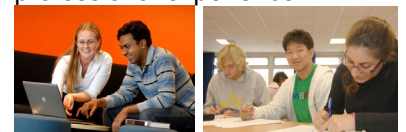
► Students join in a range of cross programme activities, such as joint seminar, projects conference and topical research meetings.

### SCHOLARSHIPS

► Our Masters is part of the prestigious Erasmus Mundus programme of the European Union, giving us 18-20 scholarships (total) for Overseas and European students joining in Sept 2010.

### APPLICATION & REQUIREMENTS

► Applicants should be competent in mathematics and/or mathematical modelling, to the level of a mathematically based undergraduate degree (including but not restricted to sciences and engineering). That degree also needs to be of high standard. We are happy to consider equivalent professional experience.

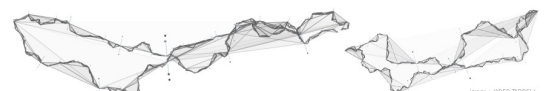


► Instruction will generally be available in English, in which all students will be required to have some competence. Local language support will be available.

► You should apply through University of Warwick (coordinator) via the website below.

Course details and application website: [www.warwick.ac.uk/go/cssm](http://www.warwick.ac.uk/go/cssm)

UNIVERSITY OF WARWICK, United Kingdom (coordinator)  
ECOLE POLYTECHNIQUE, France  
CHALMERS UNIVERSITY OF TECHNOLOGY, Sweden  
UNIVERSITY OF GOTHENBURG, Sweden



in association with the COMPLEX SYSTEMS SOCIETY.