Practical Information

Who should apply

The Summer School is intended for doctoral students and post-doctoral researchers from all disciplines who are interested in understanding the fundamental concepts of complex systems theory and its practical application in the social sciences. Applicants from all countries are welcome. Numbers are limited so please apply as soon as possible.

Location

The Summer School will be held at the Technical University of Crete at Chania. Chania lies on the northwest coastline of Crete between the Aegean Sea and the slopes of the White Mountains.

Costs

The Summer School is subsidized, however, we ask attendees to pay a contribution of 100 Euros for tuition, materials, lunches and refreshments. Attendees must pay for their own travel and accommodation. For accommodation, we suggest the Halepa Hotel. http://www.grecian.net/Halepa/ where we have reserved a number of rooms.

Further Information

For registration and for further details please see our website http://www.irit.fr/COSI/summerschool/ Alternatively, contact Chantal Morand morand@irit.fr

Complexity in Social Science

The European Commission

Research Training Networks

The COSI Network Project

The Summer School is funded and organised by the members of the COSI project. The objective of the COSI project is to assess critically and develop new ways of thinking about social processes, modelling and complex organisations. The approach is based on the notion of complexity modelling.

Research Training Networks

COSI is a research training network funded by the European Commission under Framework 5 (DG XII TMR).

The primary objective of Research Training Networks is to promote training-through-research, especially of young researchers, both pre and post-doctoral level, within the frame of high quality transnational collaborative research projects, including those in emerging fields of research.

COSI Home Page
http://www.irit.fr/COSI/

Summer School Information
http://www.irit.fr/COSI/summerschool/

Complexity in Social Science
~COSI~

SUMMER SCHOOL

Chania, Crete
June 30th — 6th July 2002

The Harbour at Chania, Crete

Research Training Networks

The Complexity Paradigm in Social Science

The complexity paradigm is based on a detailed description of the interactions between elements of the system and between the system and its environment, rather than on a purely functional description of building blocks in abstract of its relationship with the external world. When applied to the social sciences this approach allows us to develop new ways of thinking about social processes and complex organisations. Armed with a greater understanding of such situations and with the appropriate tools, we can help to redesign complex socio-organisational systems for greater efficiency and safety.

Summer School

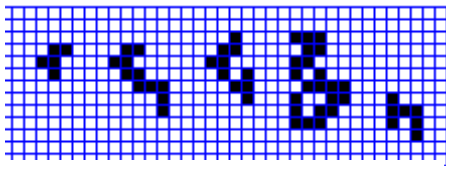
The Summer School will provide an introduction to the essential concepts of complex systems theory, such as non-determinism, emergence, self-organisation, chaos, etc. Using examples from the social sciences, speakers will illustrate the practical application of complex systems theory and show the benefits that such an approach may bring. Techniques for analysing, modelling and simulating complex social systems will be presented. Special discussion groups will focus on particular aspects of the theory and explore how complex systems theory can complement existing analytical approaches. Practical laboratory sessions will are scheduled to illustrate specific aspects of complex systems theory.

Summer School Programme

- **Notions about the theory of Complexity**
  Distributed system theory and Artificial Life *(including Emergence, Self organisation, Evolutionary computation, Agent based systems)*
  Non Linear theories *(including chaos, attractors, determinism/non tractability)*.
- **Examples in the Social Sciences**
  Economics (Dynamics of Innovation), Safety Critical Systems (Metro Systems & Air Traffic Control) , Psychology (Chaotic Linguistics), Cognition (Sidebar Conversations in a Space Mission Proposal Team) , Education (Children's Learning Mechanisms), Ergonomics (Metro Systems), Anthropology (Anasazi Cultural Change).

Stock Exchange

- **Tools for Social Scientists for Complexity Modelling**
  Intelligent agents, Genetic algorithms, Neural networks, Cellular automata, Fuzzy logic.
- **Analysing Data from Complex Work Settings** (Methods, tools, etc.)
- **Special Discussion Groups** (Emergence & the edge of chaos, activity theory & ethnomethodology.)
- **Computer Exercises & Workshops**



Emerging process. Stable structure may arise from simple interactions.

About the Speakers

Guest Speaker

Cristiano Castelfranchi is Professor at the University of Siena in the Division of Artificial Intelligence Cognitive Modelling & Interaction. He is also the Director of the New Cognitive Science Institute of the CNR. His research interests include agent and multi-agent systems (in particular, issues of cooperation, trust and norms), social communication (pragmatics and deception), cognition and social dynamics (emergence and social simulation) and processes in cognitive architecture.

Bernard Pavard is Director of research and head of GRIC-IRIT (Cognitive Engineering Research Group at the Computer Science Research Institute in Toulouse). He is the COSI project coordinator.

Christian Heath is the Director of the Work, Interaction and Technology Research Group at King's College, London.

Françoise Decortis is a FRNS researcher and lecturer at the Faculty of Psychology and Sciences of Education.

Pasquale Nardone is a member of the Prigogine group and the Solvay Institute on Complex System analysis at the University of Brussels.

Jon Rowe is a researcher at the Evolutionary and Emergent Behaviour Intelligence and Computation Research Group at the University of Birmingham.

Antonio Rizzo is the Director of the MultiMedia Communication laboratory at the University of Siena.

Nicolas Marmaras is the Head of the Ergonomics Unit at the National Technical University of Athens.

Juan Julian Merelo is Head of the GeNeura's research team at the University of Granada.

Helder Coelho is a Professor at LabMac at the Centre for Complexity Sciences at the University of Lisbon.