

# COSISP - Newsletter

Volume 2, Issue 1

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## INSIDE COSISP

### PREAMBLE

Preliminary work for the 4<sup>th</sup> International Symposium in Barcelona in 2003 has started.

The first issue of the E-journal is scheduled for the end of 2002.

### INTERESTED PERSONS/COLLEAGUES

At present 180 colleagues from 28 countries are interested in COSISP – they are either subscribed to the E-Group or have registered to become full members of COSISP.

## Imprint

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## E-Journal: International Journal of Computer Science in Sport (IJCSS)

The first issue is scheduled for the end of 2002.

Informations for authors will be made available within the next weeks.

### 1. Contents:

- Editorial
- Full papers: about 15 pages, refereed
- Reports (projects, preliminary reports): about 5 pages, recommendation of project director and topicality arguments required
- Extended essays (summaries of master theses, etc.): about 3 pages, refereed, recommendation of supervisor required, in case of doubt refereed
- Conference reports
- Upcoming conferences
- Company informations (products, etc.)
- Announcement and publication of periodical discussion forums (with experts and between subscribers)
- Informations related to COSISP

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## INSIDE THIS ISSUE

- 1** Inside COSISP
- 1** E-Journal – International Journal of Computer Science in Sport (IJCSS)
- 2** International Association of Computer Science in Sport
- 2** 4<sup>th</sup> International Symposium Computer Science in Sport and 1<sup>st</sup> Complex Systems and Sport Meeting

## 2. List of Topics:

- Modelling (mathematical, informatics, biomechanical, physiological)
- Computer aided applications (software, hardware)
- Data acquisition and processing
- Data Bases; Simulation (interactive, animation, ...)
- Development of theories
- Multimedia / Internet
- Presentation
- Education

## 3. Number of issues: 2 / year

## 4. Introductory prices

- Standard: 75 Euro
- Students: 40 Euro
- COSISP-members: 40 Euro
- Members of specific organizations (e.g. ECSS, dvs): 55 Euro
- Institutional subscriptions: 250 Euro

## International Association of Computer Science in Sport

The International Association of Computer Science in Sport will be founded within the 4<sup>th</sup> International Symposium in Barcelona 2003.

The aims of this association were published in the last newsletter.

## COMPLEX SYSTEMS AND COMPUTER SCIENCE IN SPORT (COM & COM)

The COM & COM event (Barcelona, 14-17 May, 2003), result of the collaboration between INEFC, Barcelona and CRM (Centre of Mathematics Research) under the auspices of the COSISP group, jointly hosts the:

- 1st Complex Systems and Sport Meeting and the
- 4th International Conference of Computer Science in Sport.

## PRESENTATION

The complex nature of human movement and especially sport is poorly explained by traditional movement and sport sciences. Its principles assume a linear causality model, which has had a major influence on the current learning and training methods. This classical approach, rarely questioned, is limiting the development of theory, practice and research in physical activity and sport.

The recent development of complex systems concepts, that are already applied by non-linear scientists to diverse disciplines, offer however a possibility of studying physical activity and sport from a different perspective, that can capture more closely its nature.

The aim of the COM&COM event is to jointly host the 1st Complex Systems and Sport Meeting and the 4th International Conference of Computer Science in Sport. The event has the expressed interdisciplinary intention of bringing together professionals coming from different areas: physical activity and sport sciences, training, teaching, psychology, medicine, physiotherapy, mathematics, computer science...

The 1st Complex Systems and Sport Meeting is intended to combine the contributions of internationally recognised scientists working in different fields with the aim of applying their knowledge to physical activity and sport.

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Its main objective is to serve as an interdisciplinary forum for the exchange of ideas regarding the development of an alternative paradigm. Besides disseminating the main concepts and experiences related with complex systems, the meeting is intended to generate interdisciplinary research projects. Additionally it is also expected that it will lead to the enrichment and improvement of the daily practice of professionals working in the field of physical activity and sport.

During the last years, Computer Science has become an important interdisciplinary partner for numerous traditional sciences. This is due to the fact that the use of data and media, the design of models, the analysis of systems etc. increasingly requires the support of suitable tools and concepts that are developed and available in Computer Science. For this reason and due to the need for international Co-operation in this field the first International Symposium of Computer Science in Sport was organised in Cologne (1997). From then on every two years the conference has been successfully organised in different European cities (Vienna, Cardiff). The intention is being to provide a platform for the exchange of the latest experiences and ideas regarding the use of Computer Science and supporting the development of theory and practice in sport.

This 4th International Conference of Computer Science in Sport is intended to reinforce the connections between complex systems and computer science, presenting the necessary tools for the study of complex systems in sport. Special emphasis will be focused on modelling techniques and computer based concepts applied to sport science. It is expected that these tools will enable the study of learning and training processes as dynamical complex systems and will allow the development of an alternative scientific paradigm to that currently used in sport.

Finally, the conference will present other recent contributions of computer science to physical activity and sport, emphasising on education and multimedia. Designing observational systems to support top-level teams in game sports

## TOPICS

### COMPLEX SYSTEMS AND SPORT:

- ☒ Application of complex systems principles to physical activity and sport
- ☒ Non-linear dynamics in sport science
- ☒ Complexity and Movement Science
- ☒ Self-organised motor behaviour
- ☒ Applications of Dynamical Systems Theory

### COMPUTER SCIENCE IN SPORT:

- ☒ Multimedia and presentation
- ☒ Education and new technologies
- ☒ Modelling
- ☒ Application of computer science concepts
- ☒ Databases and expert systems
- ☒ Data acquisition and analysis
- ☒ Applications: Hard and Software

Additionally detailed information can be found on the homepage - <http://www.crm.es/COMCOM/>