Title: 3rd International Workshop on Complex Information Flows (CIF 2013)

This year's focus: *Modeling, Data Analysis and Control for Large-Scale Networks*

Workshop Organizers:

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Ray Walshe, Director, Cloud Computing Research Centre, Dublin City University, Ireland;
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Goal of the Workshop:

The aim of this workshop is to discuss and advance the state-of-the-art, research and development in the area of complex systems, with an emphasis on information flow in such structures. This year's focus is on the modeling, analysis, design and control of these complex networks. How can we extract relevant information from very large networks? How can we design networks that are optimal in terms of information diffusion? What are the best techniques, or hardware solutions, for such tasks?
The workshop will be of interest to researchers across different disciplines, from academia as well as industry.

Theme and Scope of the Workshop:

Complex systems are characterized by the presence of intricate interactions between their heterogeneous parts, and an overall behavior which can not be easily explained by the properties of these individual components. For such systems, it is therefore particularly interesting to focus on how information flows between these parts, in terms of dynamical and statistical properties. This flow may represent data on a communication network, financial market interactions, gene interactions, or even a disease spreading within a population.
Due to their complexity, the analysis of such systems is not trivial. They are associated with large datasets, which require advanced techniques. Similarly, prediction implies the development of refined models and simulation tools.
Such developments are often only possible high-performance computing. Cloud computing also emerges as a suitable option in some cases, and several presentations at this workshop will look at these alternatives.

Any submission whose content is relevant to the areas of data analysis, computational modeling, networks and complex systems will be considered, but any submission whose subject matter is related to one of the following topics will be particularly welcome:

- Analysis and modeling of large-scale networks (e.g. communication networks, social networks)
  - Modeling and design of complex networks
  - Tools and metrics for large networks
  - Information diffusion in communication networks

- Towards e-Health: biomedical and social systems
  - Network approaches in genetics and epigenetics
  - Personalized medicine
  - Population studies: alert systems, epidemic modeling, etc.
  - Big (bio-)data: biological and medical data analysis

- New solutions for computationally-intensive problems
  - HPC for data analytics
  - Cloud computing
  - Pre-computation
  - Optimization approaches to complex systems

- Tools and Case-studies
  - Applications, experience reports and case studies in data analystics
  - Applications, experience reports and case studies in computational modeling
  - Tools for large-scale data analysis

Program Committee: (additional members TBC)

- Ana Barat (Dublin City University, Ireland)
- Alain Barrat, Centre de Physique Théorique, France
- John Burns (IT Tallaght, Ireland)
- Martin Crane (Dublin City University, Ireland)
- Jens Eschenbächer (BIBA, Germany)
- David R.C. Hill, Université Blaise Pascal, France
- Geir Horn (SINTEF, Norway)
- Yuki Koizumi (Osaka University, Japan)
- James Murphy (NUI Galway, Ireland)
- Heather Ruskin (Dublin City University, Ireland)
- Yusuke Sakumoto (Tokyo Metropolitan University, Japan)
- Sho Tsugawa (Osaka University, Japan)
- Keiichiro Tsukamoto (Osaka University, Japan)
- Kohei Watabe (Osaka University, Japan) TBC

Important Dates:

Deadline for paper submission:	March 20th, 2013
Notification of acceptance:	April 21th, 2013
Camera-ready due:	May 5th, 2013

Submission:

Papers must be submitted electronically via the CIF 2013 Submission Page (http://myreview.cs.iastate.edu/CIF2013). The format of submitted papers should follow the guidelines for the IEEE conference proceedings. All papers will be carefully reviewed by at least three reviewers. Papers should be no more than 6 pages. Accepted papers will be published in the workshop proceedings of COMPSAC 2013, by the IEEE Computer Society Press. At least one of the authors of each accepted paper must register as a participant of the

workshop and present the paper at the workshop, in order to have the paper published in the proceedings.