Max-Planck-Institut für Physik komplexer Systeme, Dresden, Germany

International Workshop on

Physical and Chemical Foundations of Bioinformatics Methods

June 18 - 22, 2007

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Bioinformatics is a recent discipline developed to organize and analyse the wealth of biological data generated by large scale programmes such as genome projects and structural genomics initiatives. Today, this discipline constitutes a very active and mature area of research that provides efficient algorithms for a variety of applications, including sequence alignment, gene detection, and structure comparison. So far, however, the physical and chemical foundations of the methodologies developed in Bioinformatics have not been explored with the necessary depth. Progress in understanding the structural properties of biological entities, including their physical and chemical interactions, can greatly help to improve existing bioinformatics methods, and ultimately suggesting new approaches.

We aim at bringing together researchers from different scientific communities working within the following three main areas: (i) methodological developments in Bioinformatics, (ii) experimental and (iii) computational studies of the properties of biological macromolecules. Possible synergies between these experimental, theoretical, computational, and statistical analysis approaches are anticipated to take place on two main fronts: to improve our understanding of biological information storage and processing, and to suggest new methods to extract this information from biological sequences. When achieved, such synergies will provide an integrated view of the subject. We hope that our conference can stimulate such an integration, by letting explore the connections between these different disciplines and providing a suitable framework for interaction.

Invited Speakers (to be confirmed):*

Pierre Baldi (USA)
Stefan Bornholdt (Germany)
Ralf Bundschuh (USA)*
Eytan Domany (Israel)
Hunter B. Fraser (USA)
Liisa Holm (Finland)
Amnon Horovitz (Israel)
Kevin Karplus (USA)
Sung-Hou Kim (USA)
Edo Kussell (USA)
Michael Lässig (Germany)
Andrew Lee (USA)
Pietro Liò (UK)
Jens Meiler (USA)
Leonid Mirny (USA)
Christine Orengo (UK)
Angel Ortíz (Spain)
Christos Ouzounis (UK)*
Shmuel Pietrokovski (Israel)
Robert Russel (Germany)
Michael Schroeder (Germany)
Daniel Segrè (USA)*
Luis Serrano (Germany)*
Michael Sternberg (UK)
Sarah Teichmann (UK)
Hans Westerhoff (The Netherlands)
Golan Yona (USA)

Applications are welcome and should be made by using the application form on the conference web page. However, please note that the number of attendees is very limited. The registration fee is €100, costs for accommodation and meals will be covered by the Max Planck Institute. In exceptional cases, limited funding for travel expenses is available. Please note that childcare is available upon request.

Deadline for applications is March 15, 2007.

For further information please contact:
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