Venue

The International Conference on Computational Modelling of Nanostructured Materials organized together with the 4th General Meeting of EU FP7 ViNaT Project will be held at the Goethe University, Frankfurt am Main, Germany.

Registration fees:

Participants:	280 EUR
Students:	100 EUR
VINAT members:	100 EUR

After June 1, 2013 the fee will be increased by 75 EUR;
after July 1, 2013 the fee will be increased by further 75 EUR.

Chairmen:

Prof. Dr. Andrey Solov'yov (FIAS, GU, Germany)
Dr. habil. Leon Mishnaevsky Jr. (DTU, Denmark)
Prof. Dr. Evgeny Levashov (MISIS, Russia)

Contact:

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SEVENTH FRAMEWORK PROGRAMME

Project funded by the European Commission under the 7th Framework Programme for Research and Technological Development in the framework of Theme 4 NMP - Nanosciences, Nanotechnologies, Materials and new Production Technologies – as a Coordinated call EU-Russia 2011

Project ViNaT
Contract No.:
295322

VIRTUAL NANOTITANIUM: **THEORETICAL ANALYSIS, DESIGN AND VIRTUAL TESTING OF BIOCOMPATIBILITY AND MECHANICAL PROPERTIES OF TITANIUM-BASED NANOMATERIALS**

INTERNATIONAL CONFERENCE

ON

COMPUTATIONAL MODELLING OF NANOSTRUCTURED MATERIALS

September 4-6, 2013
Frankfurt am Main, Germany

Objectives and topics:

Development of nanoengineering technologies and creation of nanomaterials opened new perspectives for a number of areas of industry and everyday life. These materials demonstrate increased strength, toughness, biocompatibility, and can ensure higher service properties, reliability and lifetime of devices and systems.

Having nanostructuring and nanoengineering technologies as the tools to enhance the service properties of devices and machines, we are faced with the question – which structures of nano-enhanced materials should we aim at in order to ensure the requirements? To make the development and optimization of nanostructured materials realizable in practice and efficient computational models and software codes for the virtual, numerical testing of these materials are necessary.

In order to develop computational modeling tools for the analysis of nanostructured metals, a European FP7 research project "Virtual Nanotitanium" (VINAT) has been started in 2011. This project is carried out in collaboration with the State Contract № 16.523.12.3002 funded by the Russian Ministry of Education and Science. The International Conference is organized in the framework of this project, and will cover the following topics:

- Computational models of mechanical behavior and physical properties of nanomaterials, linking their nanostructural and service properties,
- Nanoscale physics reflected by continuum or force fields models: assumptions and limitations,
- Continuum mechanics, molecular dynamics and quantum ab-initio methods as tools for virtual testing of nanomaterials,
- Multiscale modeling and coupling of scales,
- Thin films (including a special session organized by the Virtual Institute of Nano Films),
- Nanocrystalline metals, metal nanoparticle assemblies, nanostructured shape memory alloys, carbon nanomaterials, biocompatible materials and peculiarities of their modeling,
- Experimental validation and practical applications of computational models of nanomaterials.

International Scientific Committee:

- Prof. Alexander Hartmaier, Ruhr U Bochum, Germany
- Prof. Andrey Solov'yov, Goethe U Frankfurt am Main, Germany (Chairman)
- Prof. Bent F. Sørensen, DTU, Denmark
- Dr. Eberhard Seitz, TU Clausthal, Germany
- Prof. Elazar Gutmanas, Technion, Israel
- Prof. Evgeny Levashov, MISIS, Russia (Chairman)
- Prof. Javier Llorca, IMDEA, Spain
- Dr. habil. Leon Mishnaevsky Jr., DTU, Denmark (Chairman)
- Prof. Markus J. Buehler, M.I.T., USA
- Prof. Robert Berger, TU Darmstadt, Germany
- Prof. Roser Valenti, Goethe U Frankfurt am Main, Germany
- Prof. Ruslan Valiev, USATU, Russia
- Prof. Siegfried Schmauder, U Stuttgart, Germany

Abstract Submission

Please submit an abstract (200-300 words, in MS Word format) by e-mail to lemi@dtu.dk before April 1, 2013. Authors will be notified of the Scientific Committee's decisions shortly thereafter.

Keynote and invited speakers :

- Prof. Marc Seefeldt, Katholieke Universiteit Leuven, Belgium
- Prof. Sergey Prokoshkin, MISIS, Russia
- Prof. Javier Segurado, IMDEA, Spain
- Prof. Ruslan Valiev, USATU, Russia
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