“MEET THE SCIENTIST“

Dr. Dr. Slawomir Koziel,
Engineering Optimization & Modeling Center,
School of Science and Engineering, Reykjavik University

30.01.12 | 16:00 h

future ocean
KIEL MARINE SCIENCES
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Professor Slawomir Koziel is an expert and collaboration partner in the JRG “CO_2 uptake of the Ocean“ in the field of “surrogate based optimisation“ techniques. In our working group, we use these tools for parameter optimization and data assimilation in marine ecosystem models.

Slawomir Koziel‘s scientific career led him from Poland via the US and Canada to Iceland. He received his Ph.D. in Electrical Engineering and Mathematics from the University of Gdansk (Poland) in 2000 and 2003, respectively. After this, he worked as an assistant first at A&M University (Texas, USA) and then at McMaster University in Canada. Since 2007 he lives in Iceland where he works as associate professor at Reykjavik University.

Dr. Koziel will present results of his scientific research that come from engineering design but are very useful in climate science and in all applications where computer simulation is an important tool. Therein, employing accurate, high-fidelity solvers in the design or optimization process is a challenging task, primarily due to the associated high computational costs.

His presentation will focus on efficient simulation-driven design optimization techniques that utilize physically-based low-fidelity models. He will present several specific methods, including those based on correcting the low-fidelity model response (adaptive response correction and shape-preserving response prediction), as well as on suitable modification of the design specifications. Formulations, application examples and the discussion of advantages and disadvantages of these techniques are also included.

In a get-together after the talk there will be the opportunity to discuss questions about his scientific work and his career that led him through different countries.

Venue: Leibnizstraße 1, room 105a
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“Meet the ...” events are intended to network young researchers at all stages (Bachelors to PhD) with top-level international scientists visiting Kiel. They provide a platform for personal interactions with key players in science and an opportunity to gain insights into education and research activities, newly developing programmes as well as job opportunities.

The event is open to all interested participants.

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