MODERN TRENDS IN COMPUTATIONAL PLATFORMS FOR RESERVOIR MODELING

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Kirill Bogachev is the CTO of Rock Flow Dynamics. Kirill graduated from the faculty of Mathematics and Mechanics of Moscow State University. He is one of the leading experts in the area of high-performance parallel computing. Kirill holds degree of Dr. of Science.

He worked in YUKOS as the key software developer for dynamic reservoir modeling. In 2005 he became a co-founder and CTO of Rock Flow Dynamics, which develops tNavigator – software package for reservoir modeling.

Kirill also gives lectures to the students studying numerical mathematics on the faculty of Mathematics and Mechanics in Moscow State University.

ABSTRACT
In this talk, the author will give an overview of the capabilities of the modern hardware platforms for high-performance simulations. Detailed analysis of the hardware architecture and characteristic features of personal computers and workstations, high-performance clusters, graphical adapters and cloud platforms will be presented.

There will be a discussion about computational performance of these platforms in application to the reservoir simulations, and also about potential technical limitations.