

FRAUNHOFER INSTITUTE FOR ALGORITHMS AND SCIENTIFIC COMPUTING SCAI

# PRESS RELEASE

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**PRESS RELEASE**

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## Fast Algorithms for the Financial Industry

**Dr. Daniel Oeltz is the new head of the business area »Computational Finance« at the Fraunhofer Institute for Algorithms and Scientific Computing SCAI**

When banks and insurance companies need to assess the risks of financial products, the results must be reliable and available as quickly as possible. Dr. Daniel Oeltz knows this only too well. The new head of the business area Computational Finance at Fraunhofer SCAI has many years of experience as a quantitative analyst in the trading departments of two banks and as a quantitative risk controller at a large asset manager. Subsequently, he worked as managing partner of a consulting company in the finance and energy sector for eight years.



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For Oeltz, who holds a doctorate in mathematics, the ability to quickly arrive at a reliable result is an essential part of his work. Already in his doctoral thesis at the University of Bonn, he dealt with the acceleration of the solution of special partial differential equations, which play a central role in the evaluation of financial products. Today, the use of high performance computing as well as methods of machine learning (ML) and artificial intelligence (AI) are also very important in the financial

industry. In all these areas, scientists at Fraunhofer SCAI have been driving research and development for years.

“The institute offers ideal perspectives to support the financial industry in solving current challenges”, Oeltz is looking forward to his move to application-oriented research. For example, he would like to further develop ML and AI methods for valuation, risk calculation and portfolio optimization in the financial and energy sectors. Questions of interpretability, robustness and flexibility are in the focus of the planned research and development activities.

“Quantum computing will also become increasingly important for Computational Finance”, Oeltz is convinced. He would like to extend the results of previous quantum computing projects of the Fraunhofer-Gesellschaft with regard to financial mathematics challenges.

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### Editorial Stuff

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