

From the director

The twenty-first century has been called the "era of prediction", and the need for the computational science to make this a reality is acknowledged worldwide. Computational science is based on theory, but underlined by experimental data, and this link between theory and experiment is vital for the future of science and technology.

In particular, a lead in the development and use of supercomputers is vital for Japan's international competitiveness. It has been given the status of a National Critical Technology in the third Basic Program for Science and Technology, and MEXT is promoting it under the title of "Next-Generation Supercomputer Project". RIKEN has been entrusted with the construction of the project, and has responsibility not only for its research and development, but for promoting its basis, computational science.

This project requires not only world-class hardware, but also research and development of leading-edge software. We aim to make possible simulations which use the next-generation supercomputer to its fullest potential by developing application software to synthetically understand natural phenomena, the "grand challenge applications" .

From October 2006, in close collaboration with other institutions, we at RIKEN started the "Research and Development of Next-Generation Integrated Life-Science Simulation Software", a "grand challenge application" for the life sciences, to make full use of the power of the Next-Generation Supercomputer and enable ground-breaking new simulations.

This will establish computational science as a new methodology for the life sciences, and we are determined to bring about breakthroughs. At the same time as its development, we also plan to distribute the software to industry in order that these results may be used in real-world applications, and contribute to the success of the next-generation supercomputer.



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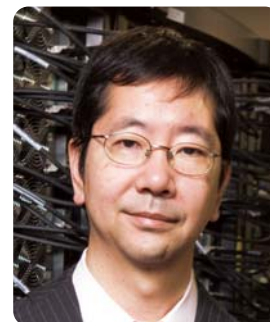
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