

Keynote Address

The Earth Simulator and Beyond—Technological Considerations Toward the Sustained PetaFlops Machine

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Summary: Since its release in early 2002, the Earth Simulator with a 40-TFlop peak speed has demonstrated the fastest sustained performance in many applications and brought us new findings in various application areas such as the environment and nano material sciences. In this talk, the system architecture and implementation of the Earth Simulator will be introduced as well as application results and performance. Our target for the next generation is clearly the sustained PetaFlops machine, which is a big challenge for us. There are many technological barriers to overcome that will be introduced in my talk.