The Vast Light Source

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Energy-Recovery Linac (ERL) based Free-Electron Laser (FEL) has been a promising solution for the high-power EUV light source for future semiconductor lithography. Considering the increasing demands of semiconductors and the roadmap for smaller nodes, realization of a higher power EUV (and BEUV) light source at high efficiency has been strongly required. At KEK, we have been designing ERL-EUV-FEL based on our experience of construction and operation of a test ERL accelerator. We will present the design of the accelerator system and its expected performance from the basic principle. It will explain the technical key items in the accelerator development planned in next 5 years.

Biography

He received his PhD from Kyoto university in 2004. He is an associate professor of High Energy Accelerator Research Organization (KEK). He belongs to Innovation Center for Applied Superconducting Accelerators (iCASA). He has been working for accelerator science, especially in the interdisciplinary area of high quality electron beam and photonics.