Target of the workshop

Hiroshi Kawata

Innovation Center for Applied Superconducting Accelerator, (iCASA),
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Present situation around the Future Lithography

- High-NA EUV exposure systems have been in operation globally.
- The development project for "next-generation semiconductor microfabrication process technology" under the government-led "Key and advanced technology R&D through cross community collaboration program (K-program)" has been advancing since April 2025.
- Department of Commerce and NIST Announce CHIPS Research and Development Letter of Intent with xLight, Inc. for Extreme Ultraviolet Lithography in US.

https://www.nist.gov/news-events/news/2025/12/department-commerce-and-nist-announce-chips-research-and-development-letter

The target of the present Workshop

- **It is important to hear the overall picture of the K-program from the Program director!**
- Keynote lecture by Prof. Junji Yumoto (The University of Tokyo, Program director) “Development of Next-Generation Semiconductor Process Technologies for EUV and BEUV under Japan’s “K Program” by JST”
- **Present situation of the on-going EUV-FEL project of xLight Inc. in US**

➔Keynote lecture Nicholas Kelez (xLight Inc. , CEO & CTO) “Reviving Moore’s Law with an EUV FEL”

- **Present situation of the on-going project of the KEK EUV-FEL R&D promoted by K-program**

➔Invited talk by Prof. Yosuke Honda (KEK) “The Vast Light Source”

- **BEUV is also very important target for future Lithography and for EUV-FEL**

➔Invited talk by Prof. Takeo Ejima (Tohoku University) “Development of Multilayer Mirrors for BEUV Reflective Optics -Current Status of an Ongoing Project-”

We hope that you will understand much more deeply about the solutions and/or issues for the above items in this workshop.