



84th RAP³ Seminar

The 84th Seminar on RIKEN Center for Advanced Photonics

Language: Japanese

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Location: **W319, 3F, Cooperation Center, Wako Campus, RIKEN**
(理研 和光キャンパス 研究交流棟 3階会議室 W319)

Title: **Microfabrication techniques that supports high-performance optical devices**

高機能光デバイスを支える微細加工技術

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Pre-registration



Optical elements are components that utilize the properties of light to realize various functions, and are used in lighting, cameras, optical communication, display devices, and optical sensing devices, etc. The optical devices market is expected to grow in the future, and there is a demand for higher performance such as miniaturization, light weight, and low power consumption, etc. Therefore, the quality required for optical elements is also on the rise. In this presentation, we will take some recent R&D projects at our company (super-wide-angle micro lens array diffuser, all plastic waveguide gratings for AR display elements, and glass high-aspect gratings by joint research with RIKEN) as examples of such cases, and report on microfabrication techniques by ultra-precision machining, nano-lithography, precision molding, measurement and also on its challenges.