



81st RAP Seminar

The 81st Seminar on RIKEN Center for Advanced Photonics

Language: Japanese

- Hybrid Format -

Date: **April 14 (Fri), 16:20 - 17:20, 2023**

On-site: **W319, 3F, Cooperation Center, Wako Campus, RIKEN**

Online : **Zoom**

Title: **Breaking technical barriers in vibrational spectroscopy and microscopy: New techniques and applications**

振動分光および顕微鏡における技術障壁の克服：新技術と応用の展開

Speaker: **Prof. Takuro IDEGUCHI**

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Pre-registration



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Vibrational spectroscopy and microscopy are widely used in various scientific fields to provide rich chemical information on molecular samples. Over the last decades, significant advancements in instrumentation have opened up new scientific fields. However, technical limitations such as measurement speed and spatial resolution have hindered the full potential of vibrational spectroscopy and microscopy. In this talk, we will discuss how we are pushing instrumental developments further to overcome these limitations. We will introduce several new mid-infrared and coherent Raman spectroscopy and microscopy techniques, which use modalities such as Fourier-transform spectroscopy, dual-comb spectroscopy, time-stretch spectroscopy, and photothermal microscopy. We will also highlight some of the applications enabled by these techniques.