



## 東京大学微細構造解析プラットフォーム 公開講演会

### “Revealing nanostructures using focused electron beams”

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Modern electron microscopes can generate highly stable, phase coherent electron beams that can be brought to a focal point much smaller than an atom. These are finding particular application in the determination of the local structure and bonding of nanostructured materials, whose macroscopic properties can depend on a small number of atoms located in critical positions. This talk will describe methods for solving the atomic structure of nanostructured materials using focused electron beams. It will illustrate these with applications to a range of functional materials, such as Li-ion conductors, plasmonic nanoparticle systems and semiconducting nanostructures.

The talk will include a brief overview of quantitative methods in convergent beam electron diffraction for the determination of structure and bonding in nanocrystals; methods to extract atomic-resolution information from atomic-resolution scanning transmission electron microscope (STEM) images; and novel STEM imaging modalities using unusual detector locations and geometries.

**July 25 (Tue), 2017 16:00~17:30**

**204 meeting room at Takeda Building, UT  
(東京大学武田先端知ビル 2階 204 会議室)**

**Organizer: Prof. Naoya Shibata, Prof. Yuichi Ikuhara**

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