

## Scattering beyond the average: X-ray nanodiffraction

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X-ray diffraction has been used to study the atomic structure of crystalline and amorphous materials since its discovery about a century ago. Nowadays, the development of new bright X-ray sources makes it possible to extend the limits of X-ray diffraction and not only to study the average structure of a material, but also to do so with unprecedented spatial resolution.

In this talk, I will give an introduction to X-ray diffraction and discuss advances in synchrotron X-ray sources and nanofocusing X-ray optics. At the end I will show some experimental results from hard and soft condensed matter.

