

# Synchrotron based search for new quantum materials

*Monday, November 4, 2024 9:10 AM (25 minutes)*

The electronic band structure holds the key to understanding the properties of quantum materials, as well as the mechanisms behind quantum phenomena like superconductivity and other electronic orderings. In this talk, I will briefly review our results in this area and highlight cases where synchrotron experiments play a crucial role in determining the real electronic band structure, thereby advancing the development of new quantum applications. I will also present our ongoing projects, including theory-assisted searches for novel materials and applications, such as a high-speed matrix kinetic detector based on multi-band superconductors.

## Type of presence

Presence at Taras Shevchenko National University

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**Session Classification:** Unifying Efforts: Developing the Ukrainian Synchrotron Community and Research Infrastructure

**Track Classification:** USyNC Workshop