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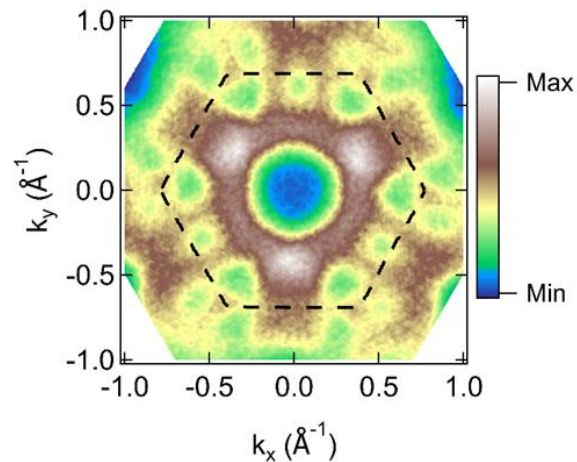
A 'surface level' view of Weyl semimetal materials

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About The Speaker:

Doctor Inna Vishik is an Associate Professor of Physics and Astronomy at UC Davis. She received her undergraduate education at Stanford University, where she first began doing research in condensed matter. She went on to do a PhD in Stanford in this area, focused on unraveling intricate interactions in high-temperature superconductors. After a subsequent postdoc at MIT, she returned to the west coast to build her lab at UC Davis. She and her team perform experiments which use the photoelectric effect to probe how electrons move in quantum materials.



Abstract:

Angle-resolved photoemission spectroscopy (ARPES) is a surface sensitive probe of electronic band structure, and surface chemistry can strongly influence surface band structure, especially in systems with bulk-boundary correspondence. I will discuss recent work in my group involving controlling and assessing the impacts of surface chemistry in Weyl semimetal compounds, highlighting our work on $\text{Co}_3\text{Sn}_2\text{S}_2$, where two distinct surface terminations yield different characteristic surface electronic structure. There, I will discuss our work in identifying these terminations and assessing the topological phase transition across the Curie temperature.

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Date:
2/2/2024

Time:
10:30 AM – 11:50 AM

Location:
GRANITE PASS 135