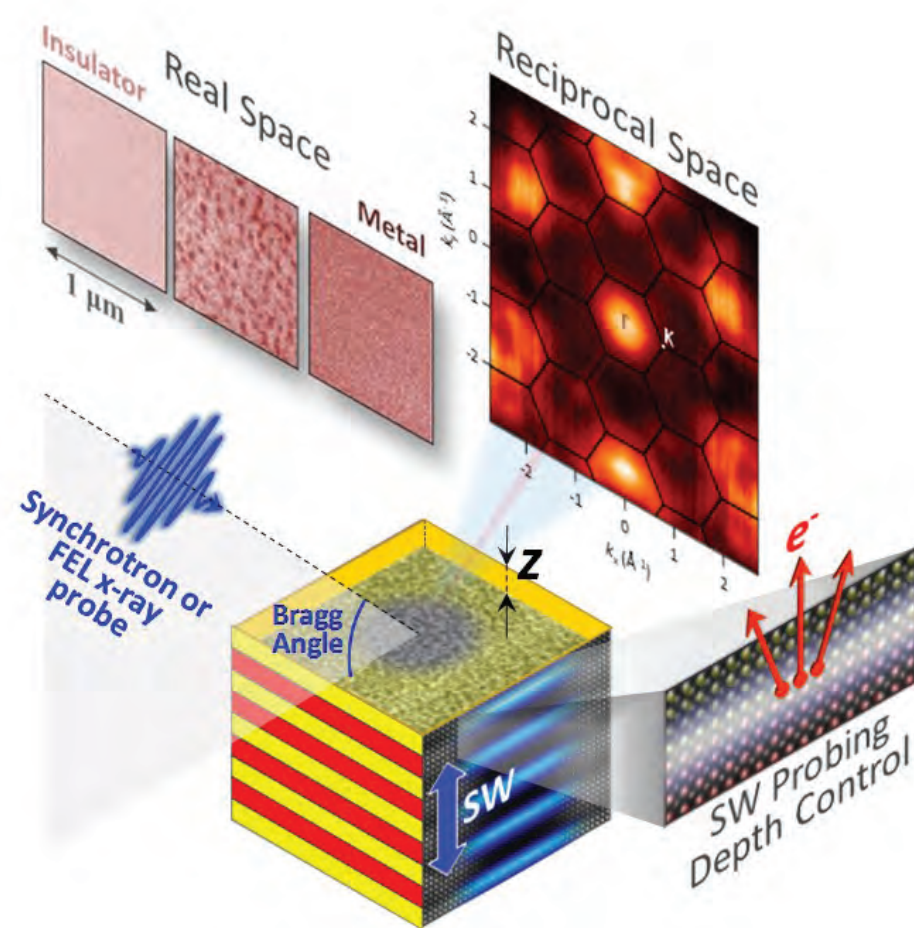


Alexander Gray

Future Directions in Soft and Hard X-ray Photoemission

Over the past decade, standing-wave photoemission (SW-XPS) has evolved into a powerful and versatile non-destructive technique for probing element-specific electronic, magnetic, and structural properties of buried layers and interfaces with sub-nanometer depth resolution. This talk will cover several promising future directions in this emergent field stemming from experimental and theoretical studies wherein SW-XPS is combined (or used in-tandem) with other x-ray techniques, such as hard x-ray photoemission spectroscopy, angle-resolved photoemission, x-ray absorption spectroscopy, and photoemission microscopy, adding extra dimensions to the measurement, and thus widening the scope of, scientific and technological questions accessible via the use of x-rays.



Alexander Gray is an Assistant Professor of Physics at Temple University. He received his Ph.D. in Physics from the University of California, Davis, and then did his postdoctoral training at Stanford University and SLAC National Accelerator Laboratory. Prof. Gray's group's research activities focus on the development of novel depth- and time-resolved x-ray spectroscopic and scattering techniques for studying rich electronic behaviors in quantum solids and interfaces. He has been awarded a Young Investigator Program award by the Department of Defense, and the Early Career Award by the Department of Energy.

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