

## "SEEING" MULTIPOLAR **ORDERS IN QUANTUM MATERIALS**

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Unlike ferroelectrics and ferromagnets where electric and magnetic dipoles align collinearly, multipolar orders involve noncollinear arrangement of dipoles within lattice primitive cells. Such orders are widely present in a broad class of quantum materials and are believed to play crucial roles in determining the physical properties, but are well known to be challenging to detect. We utilize nonlinear optics to probe, image, and manipulate such multipolar orders.

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2:00 PM

CFEL SEMINAR ROOMS I-III **ONLINE PRESENTATION** CHECK HHPS.DE FOR FURTHER INFORMATION















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