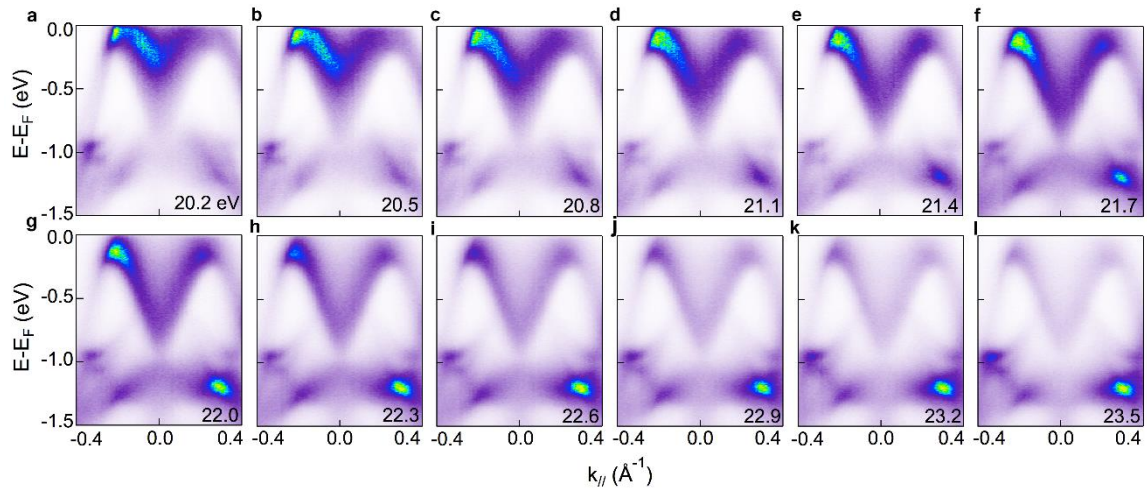
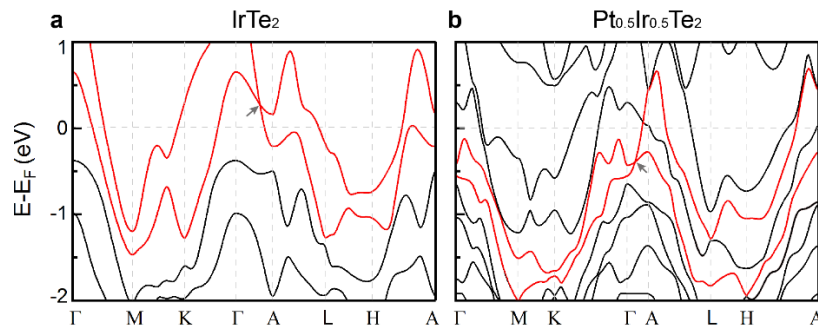


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Description: Supplementary Figures

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Supplementary Figure 1: Evolution of the dispersion along Γ -M with a finite k_z (photon energy) step. (a-l) Dispersions along Γ -M high symmetry direction at different k_z values from 0.28 to $0.41 \times 2\pi/c$ with a fine photon energy step of 0.3 eV.



Supplementary Figure 2: Doping PtTe_2 with Ir to shift the Dirac node to the Fermi energy. (a) Calculated band dispersion of IrTe_2 along high symmetry directions, resolving the tilted Dirac node above the Fermi level. **(b)** Calculated band dispersion of $\text{Ir}_{0.5}\text{Pt}_{0.5}\text{Te}_2$ along high symmetry directions.