

QM5: **Anna Tamai** (Université de Genève) 2h

"ARPES studies of quantum materials"

Angle-resolved photoemission (ARPES) is arguably the most direct probe of electrons in a solid and proved invaluable in revealing the properties of topological matter and bulk correlated electron systems. Recent technical advances have pushed the sensitivity of this technique to a level where high-quality data can now be obtained from micron-sized, atomically thin 2D materials and heterostructures. In this lecture I will present key aspects of the technique and discuss two scientific cases that illustrate its capability to probe many-body interactions in quantum materials: (i) electron-electron correlations in the model Fermi liquid  $\text{Sr}_2\text{RuO}_4$  and (ii) electron-phonon coupling in exfoliated 2D materials.