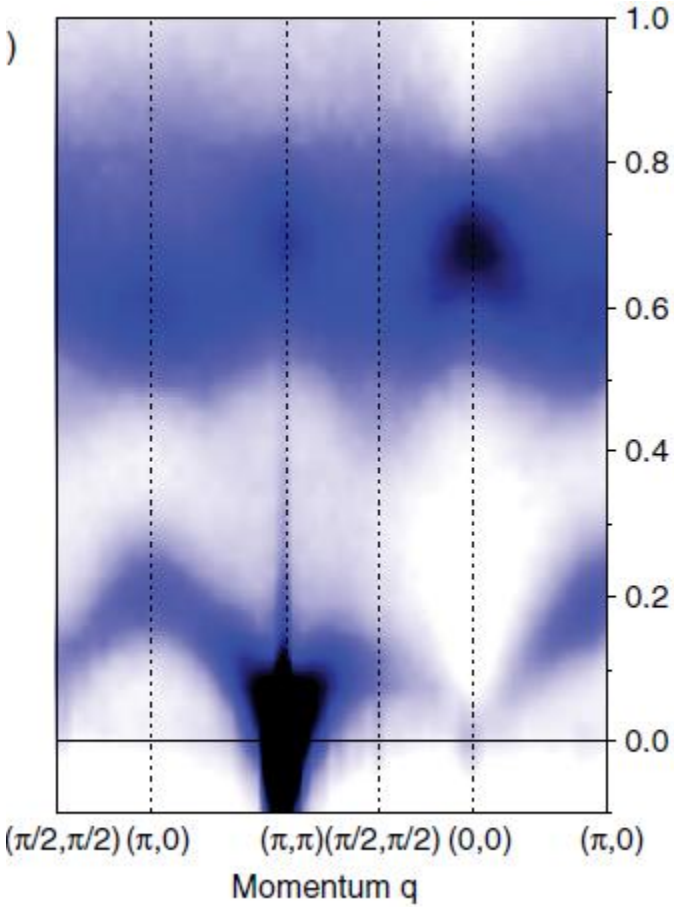
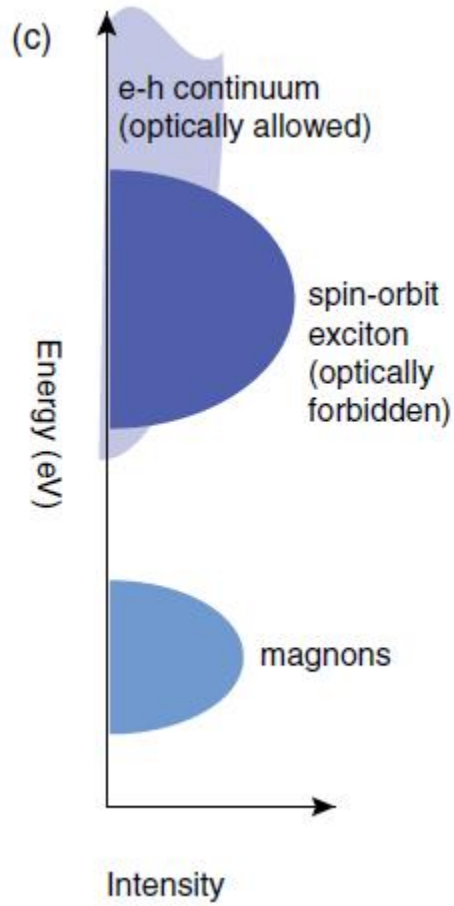
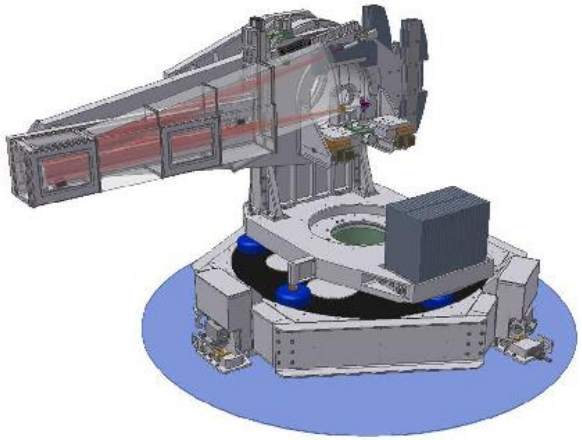
Magnons using RIXS (hard x-ray)

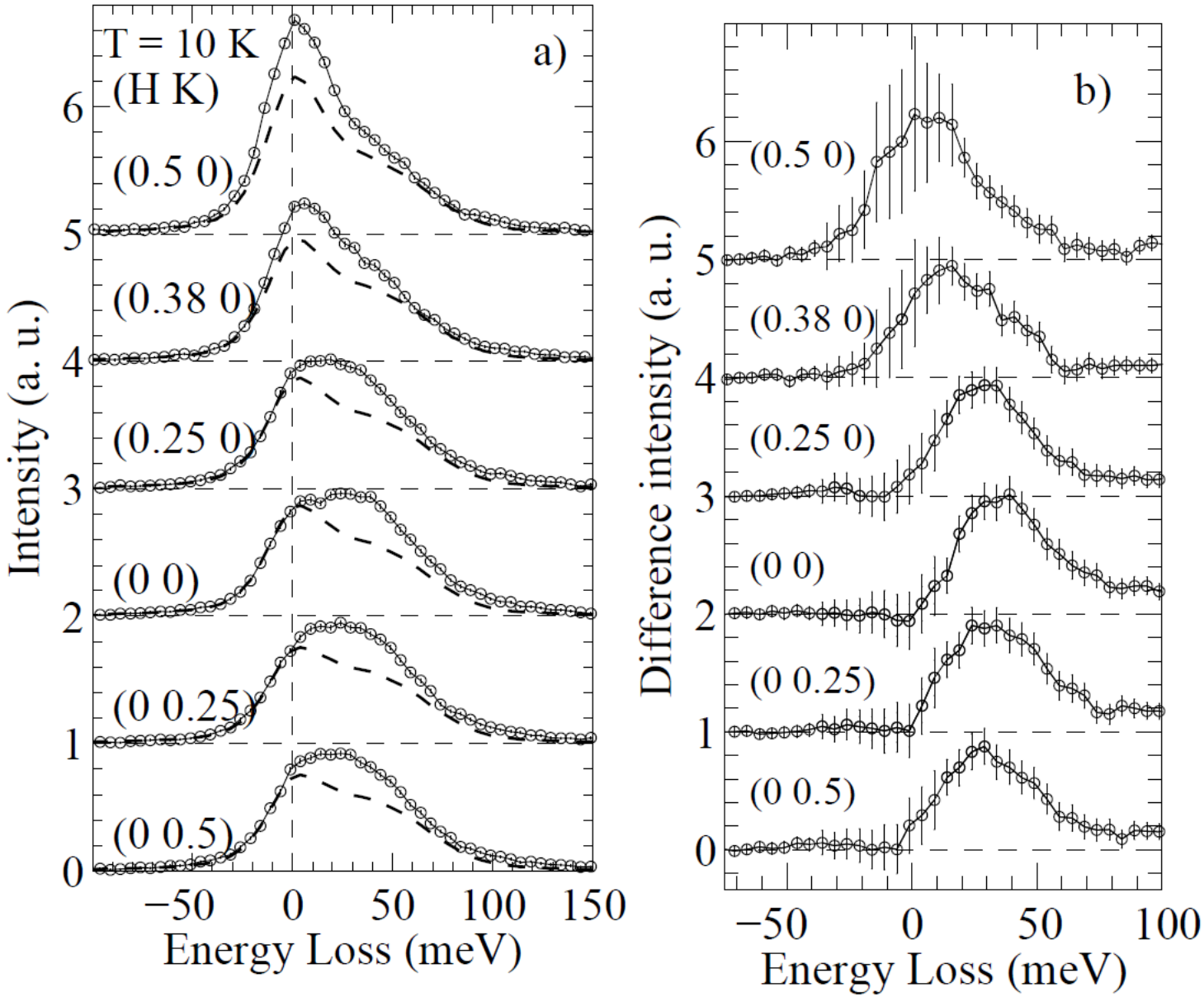






Jungho Kim et al. PRL 108, 177003 (2012)

But still need higher resolution



MBA+RIXS

- Beam size
- Beam Shape
- Coherence
- Resolution?
  - Energy resolution
    - Resolution tail?
  - Momentum resolution

MBA+RIXS

- Beam size
  - Resolution
  - High pressure
    - Will Mbar useful for correlated electron systems?
  - Small sample
    - Magnon dispersion from powder-like samples?
    - Nano-RIXS?
      - What is the length scale that's going to be interesting?
      - Low temperature challenge?
- Shape
  - Polarization control
    - Polarization analysis for magnetic RIXS? Phonon/magnon
    - Circular pol. – magnetic RIXS at K-edge?
- Coherence (?)