

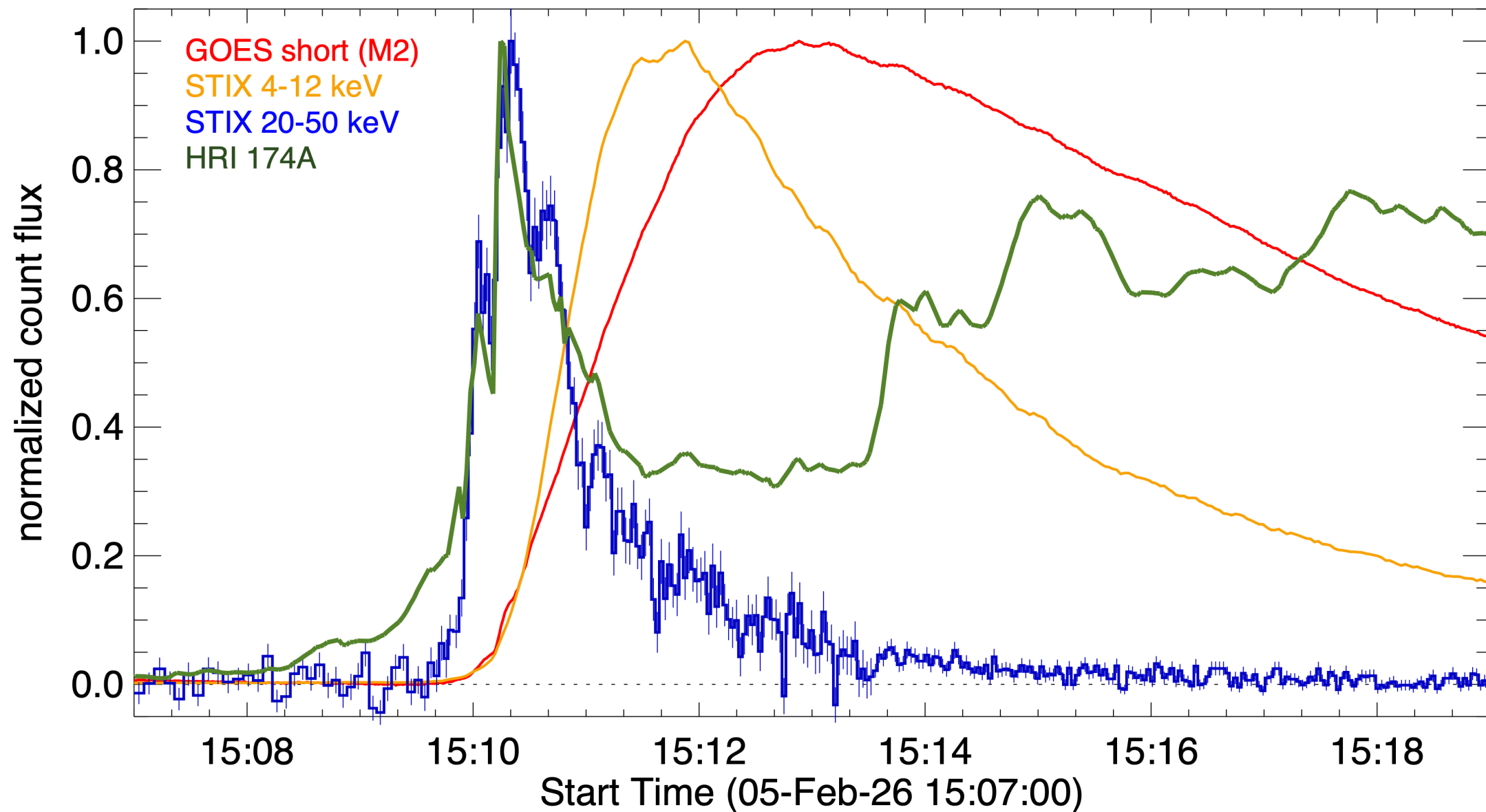
First statistical results from the Solar Orbiter flare campaign

Säm Krucker, FHNW

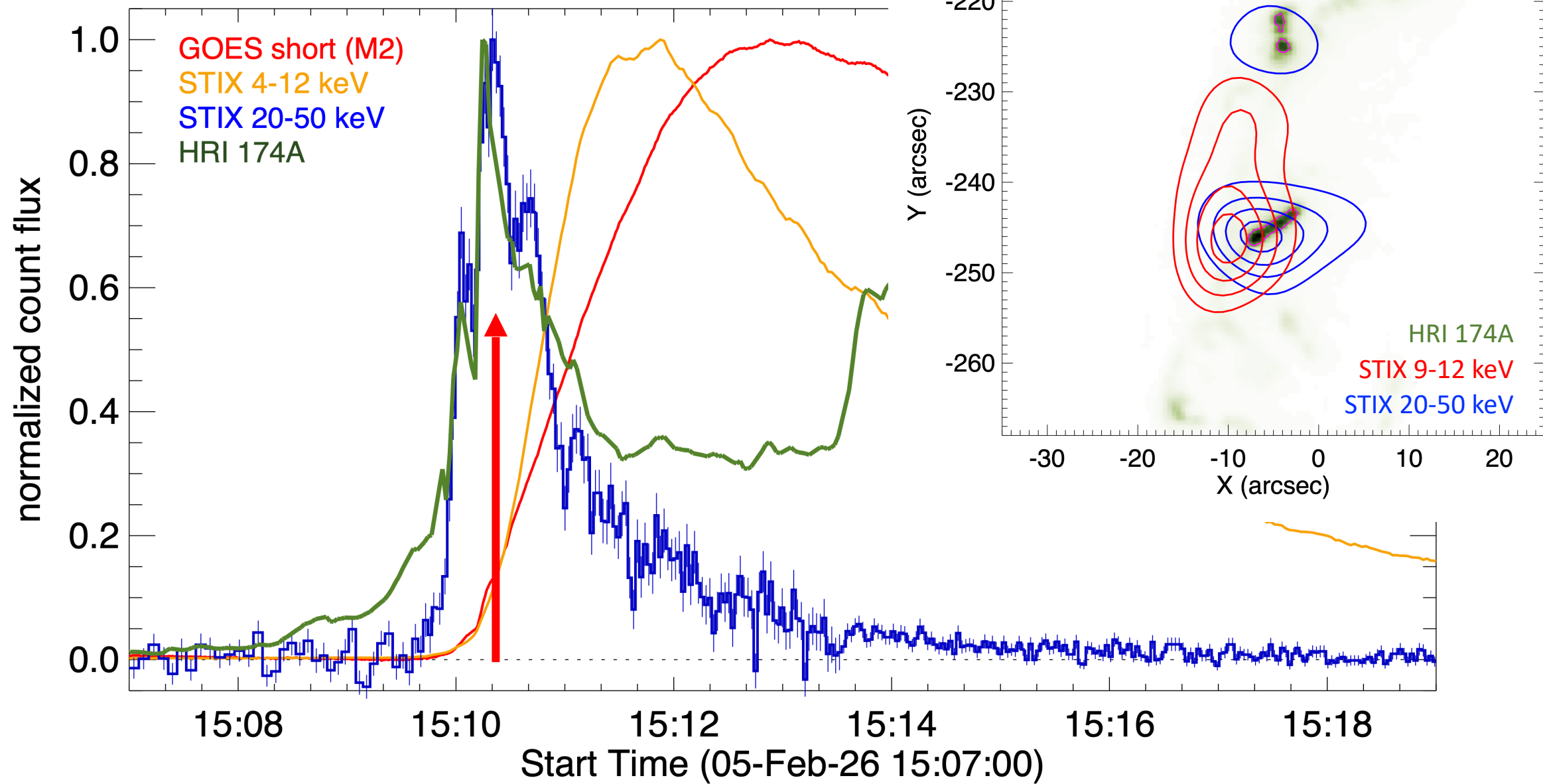
Motivation:

- We need more statistical studies.
- EUH/HRI flare campaigns observed 10 M-class flare (all M1 and M2)
- what is the correlation between EUV ribbon flux and non-thermal HXRs?

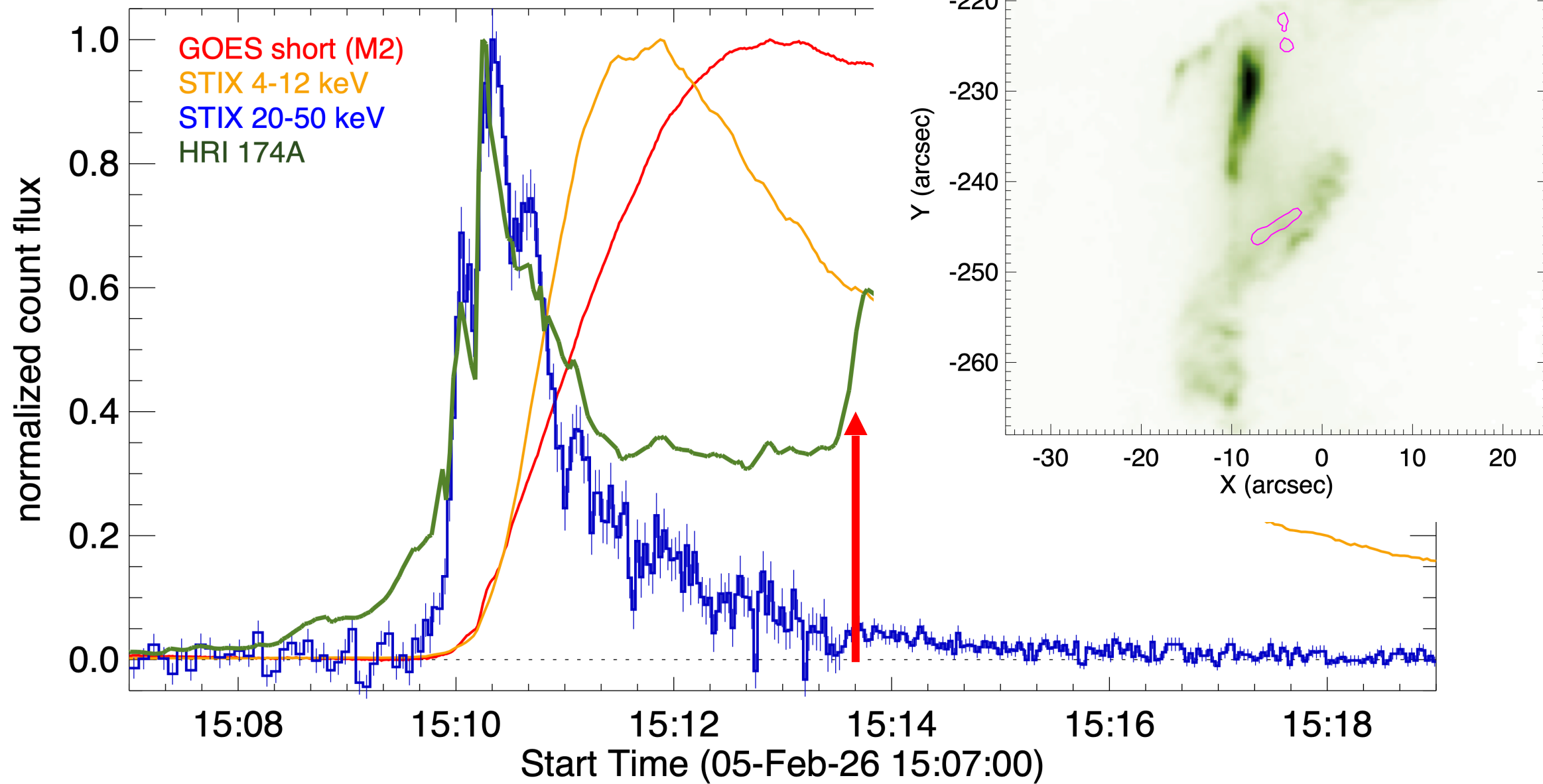
HRI and STIX flare (SOL2026-02-05 M2)



HRI and STIX flare



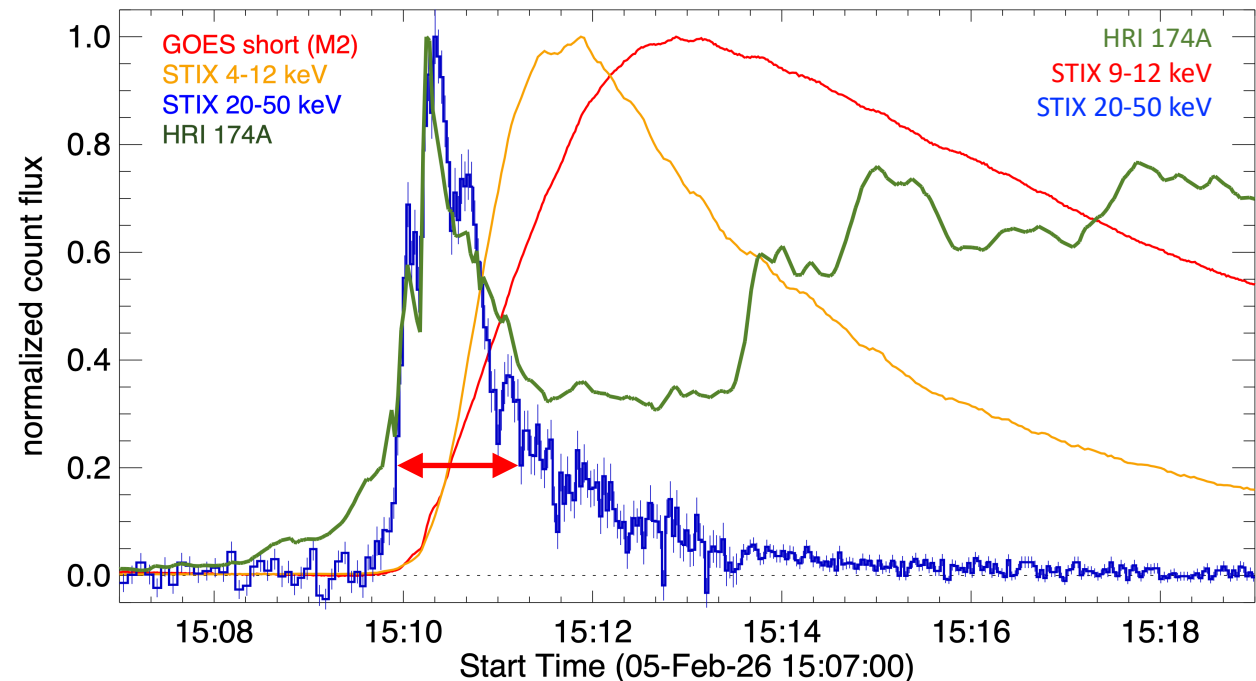
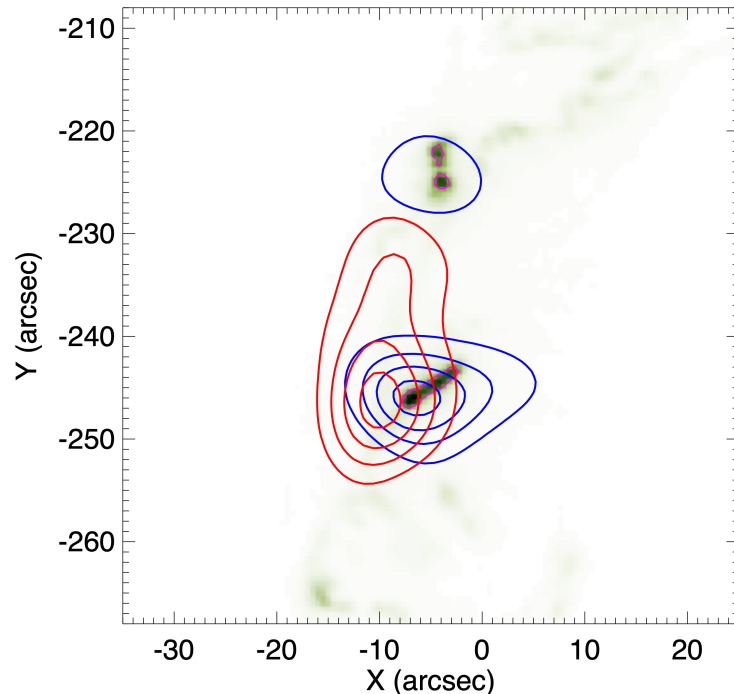
HRI and STIX flare

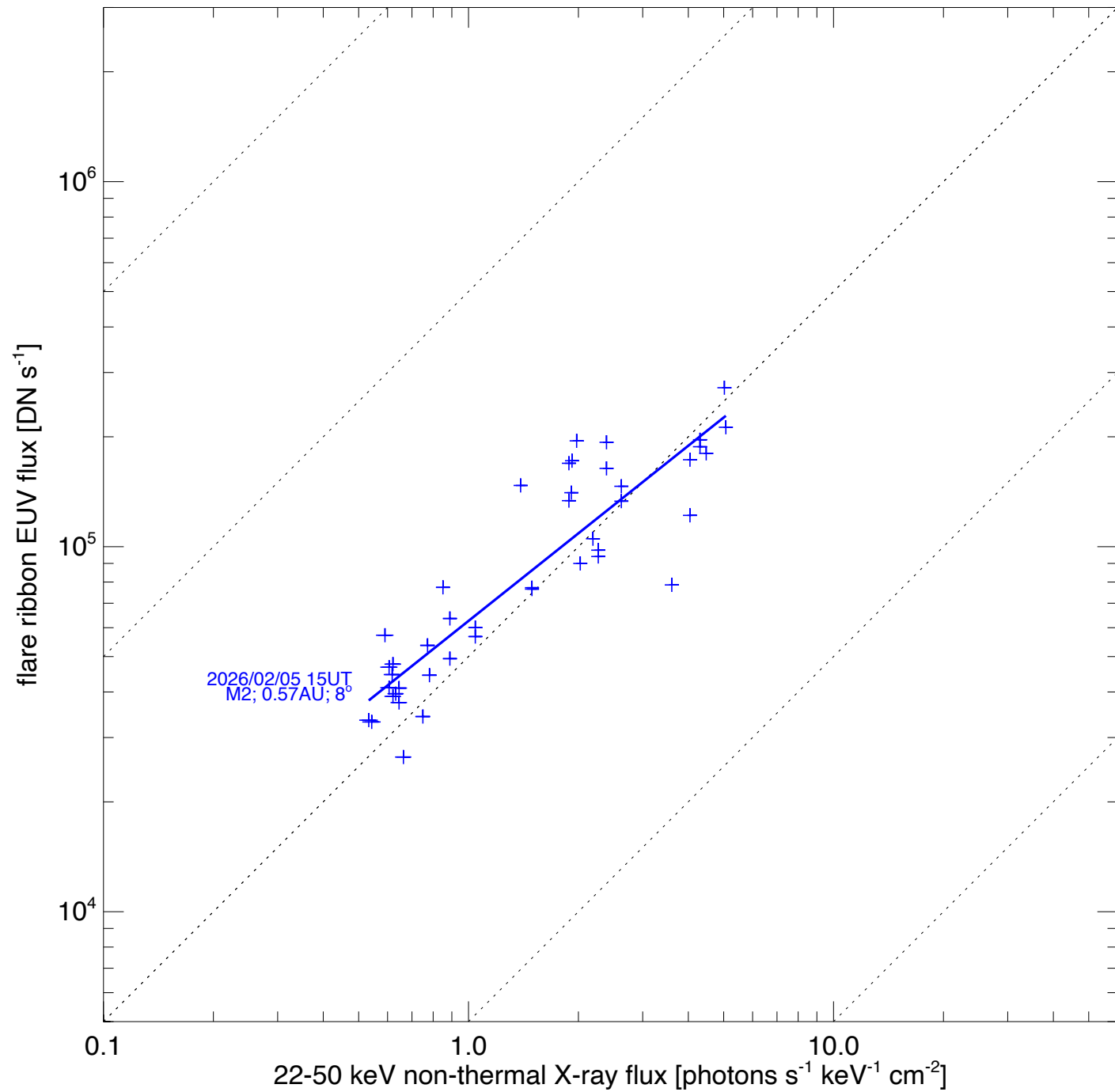


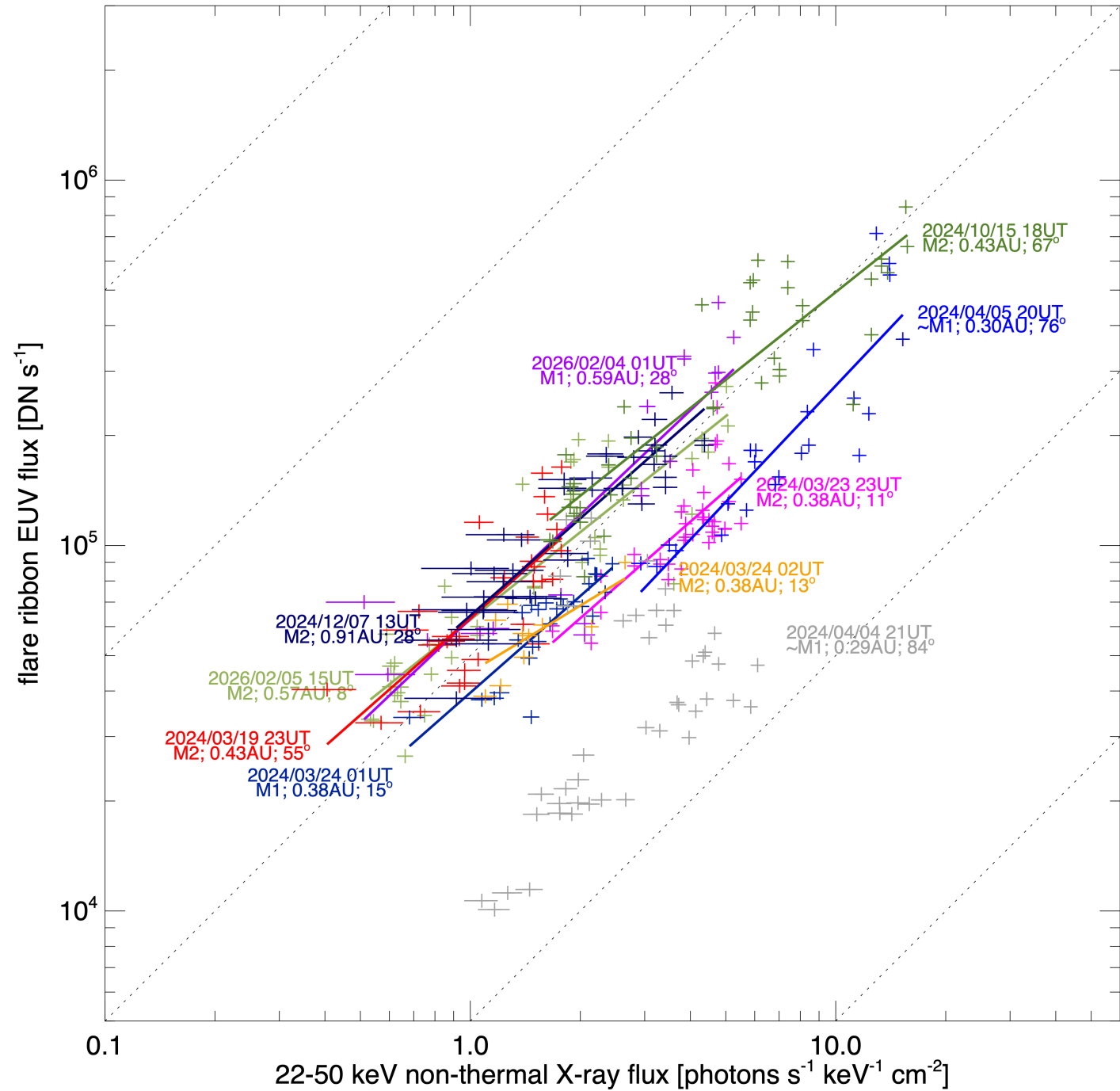
EUI/HRI: 10 M class flare observed so far

For each flare:

- **EUV flux:** Select flare ribbon area and sum over all pixels within selected area
- **HXR flux:** Use 22-50 keV, select time bins around HRI short exposures frames
- scatter plot of EUV vs HXR fluxes (only for impulsive phase)







Summary

- HXR and EUV fluxes from flare ribbons are correlated during the impulsive phase
- roughly linear correlation: output (EUV) is proportional to input (HXR)
- near limb event deviates, likely due to absorption of the EUV flux along the line-of-sight
- next steps
 - Smaller flares? not yet done
 - compare with RADYN simulations