Diagnosing the explosion mechanism of Type-Ia SNRs: the case of Tycho's SNR

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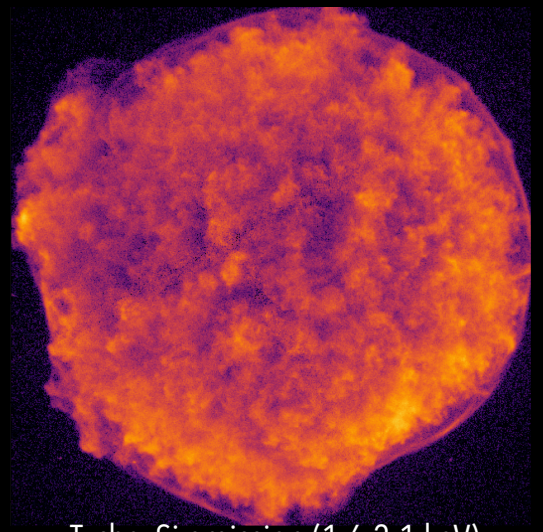
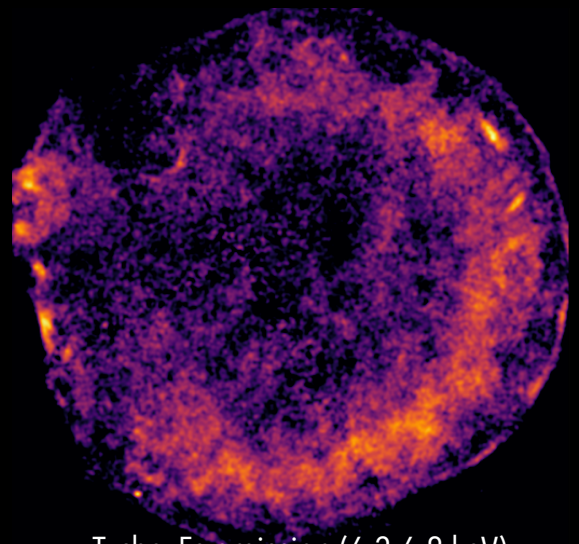
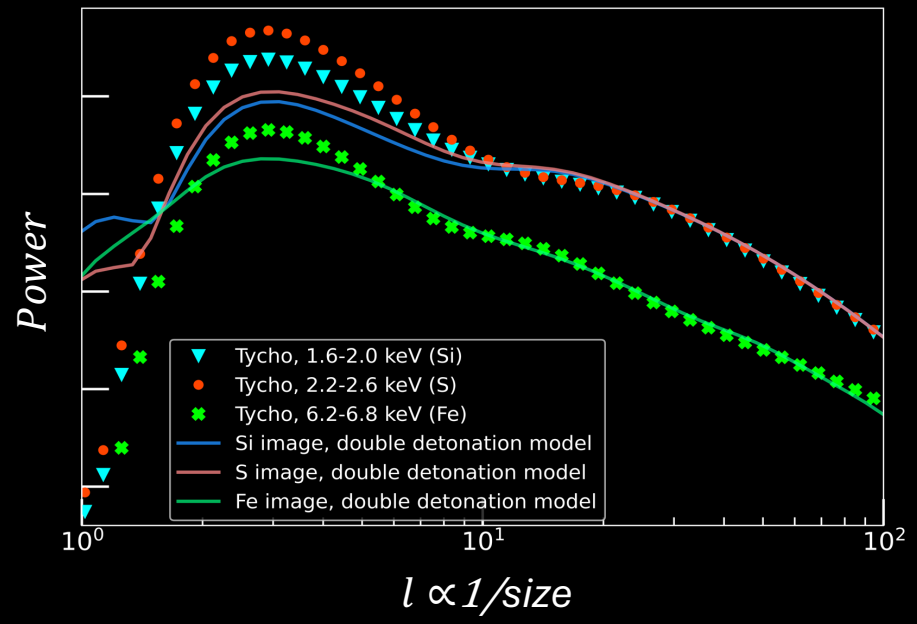


Tycho, Si emission (1.6-2.1 keV)



Tycho, Fe emission (6.2-6.8 keV)



- ✓ The size difference between Si- and Fe-dominated substructures is a unique signature of sub-Chandrasekhar mass Type-Ia SNRs.
- ✓ Tycho's SNR bears this signature and likely had a sub-Chandrasekhar mass progenitor.