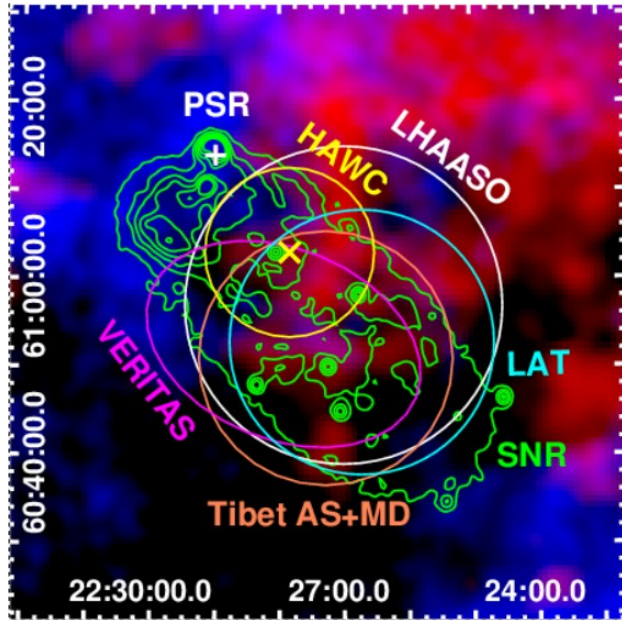


SNR G106.3+2.7: A likely Proton PeVatron

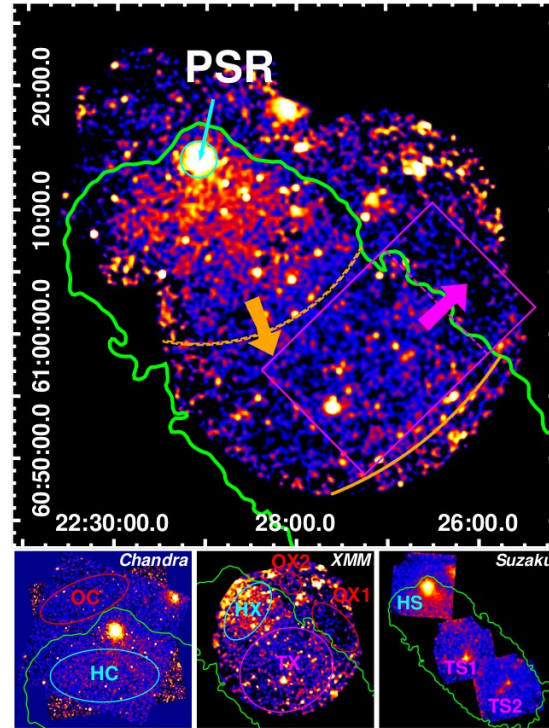
Ge, Ruo-Yu Liu, Niu, Chen & Wang 2021
Innovation, 2, 100118; arXiv:2012.11531



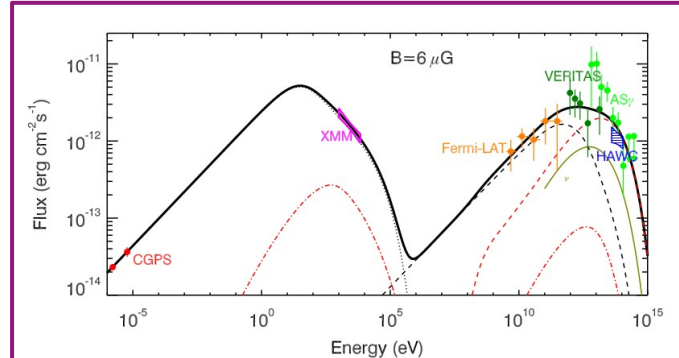
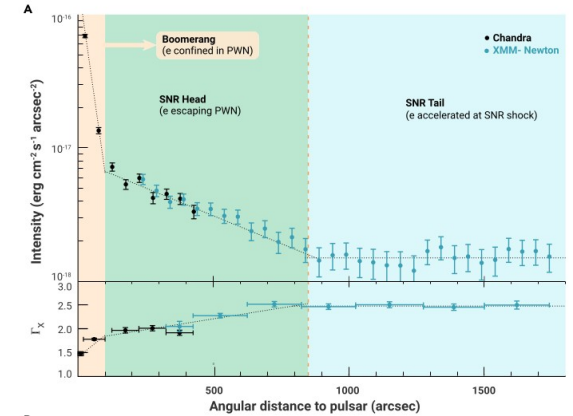
A middle aged SNR associated with the Boomerang Nebula powered by PSR J2229+6114 ($t_c=10\text{kyr}$, $L_s=2.2e37\text{erg/s}$)



Blue: Atomic (HI) Cloud
 Red: Molecular Cloud
 Green: Radio Contour



Nonthermal X-ray discovered from the nebula, the head, and the tail region. **Shock speed $\geq 3000\text{km/s}$**
PeV proton acceleration possible



γ flux of IC-origin is limited by X-ray observation and KN effect, a hadronic component is needed at least for $>10\text{TeV}$ emission