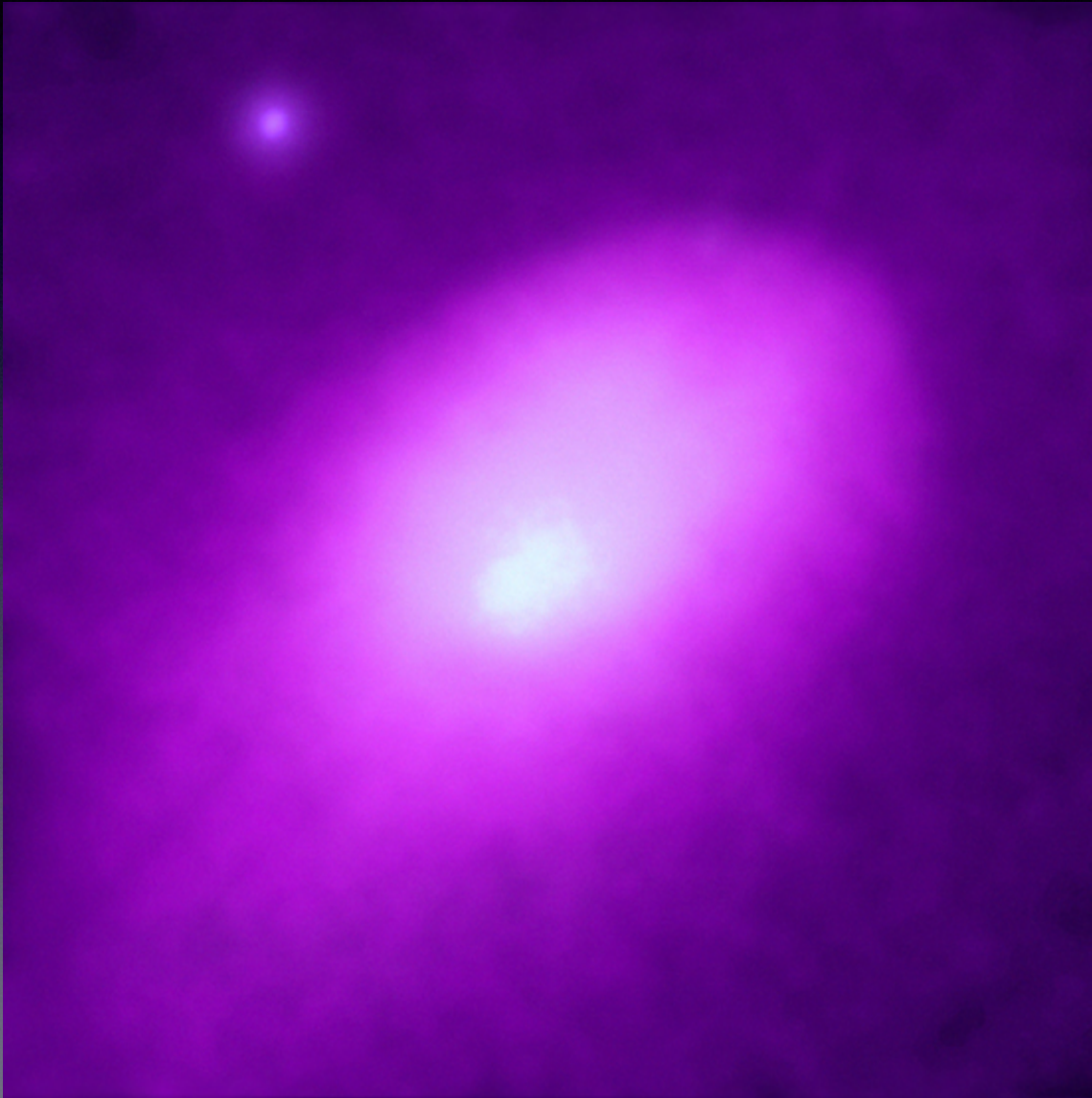


Physics of Plasmas Science Working Group

Current Status

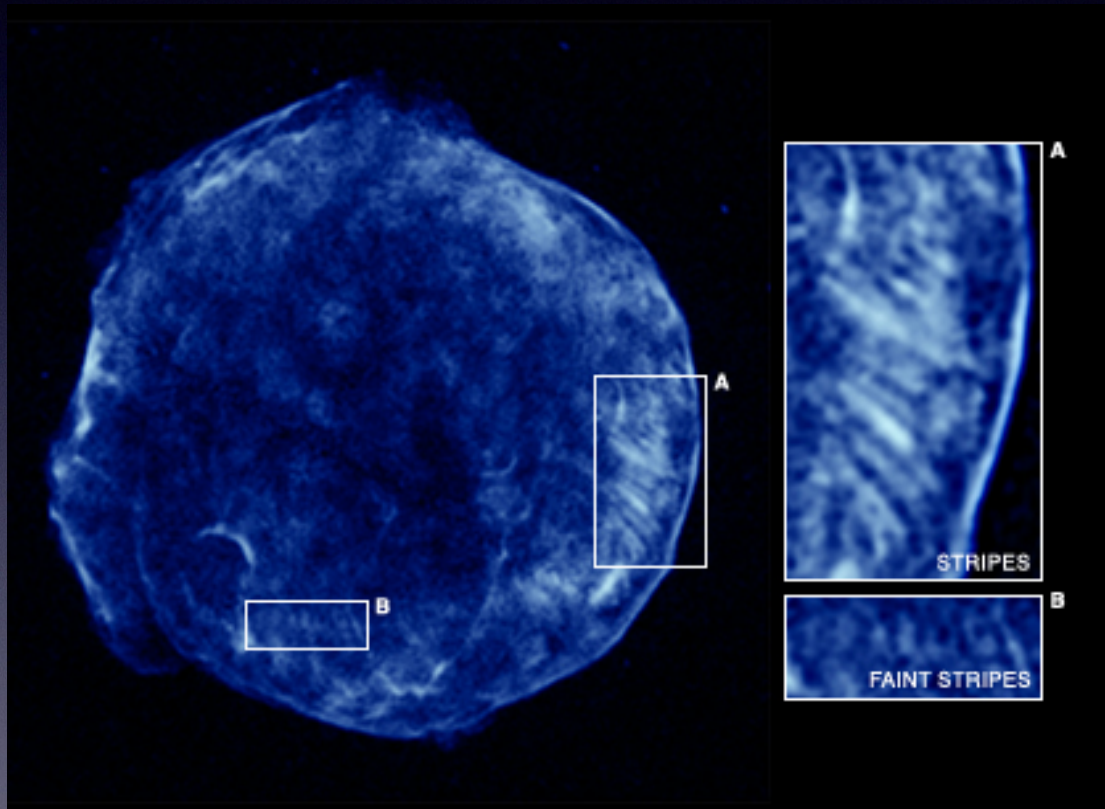
- Leads: Eliot Quataert & Alexey Vikhlinin
- 18 people have signed up so far
- some reaching out to community; more in progress
- expertise still needed in some areas
 - observations of SNRs, jets, ... (theory covered)
- Key Challenge: how to sell this more broadly to the rest of the astronomical community. tie it to both astronomical processes not just physical processes

Galaxy Clusters



- thermal conduction
- electron mfp scales
- waves & damping
- turbulence
- $T_e \neq T_p \neq T_{ion}$
- impacts use of clusters for cosmology

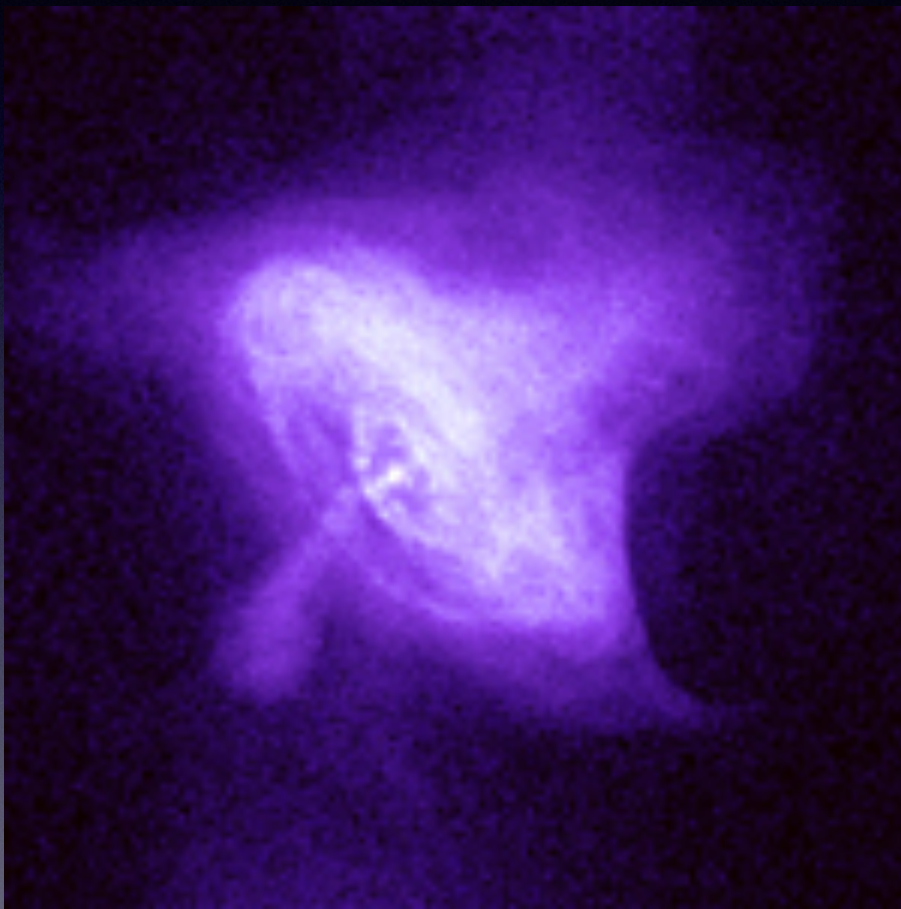
Supernova Remnants



Tycho

- particle acceleration
- magnetic field amplification
- cosmic ray propagation
- $T_e \neq T_p \neq T_{ion}$

Pulsars



- reconnection, shocks, supernova physics, ...

AGN Jets



- particle acceleration, reconnection, instabilities, feedback, ...

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