

# 10 yrs of Cassiopeia A in hard X-ray: Extremely fast cooling and ongoing acceleration of TeV electrons

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## ☀ First spatially resolved hard X-ray variability of Cassiopeia A ☀

- 15-50 keV flux has **decreased** by “only” (15±1)% in 10 years...
- But we expected **at least -50%**.  
→ Most energetic electrons are **getting injected** into Cas A!

- (1) What is the **injection spectrum**?
- (2) Is it the same as the spectrum of preexisting electrons?
- (3) Does it match the **DSA prediction**?
- (4) Where are electrons coming from?
- (5) What about **protons**?

