

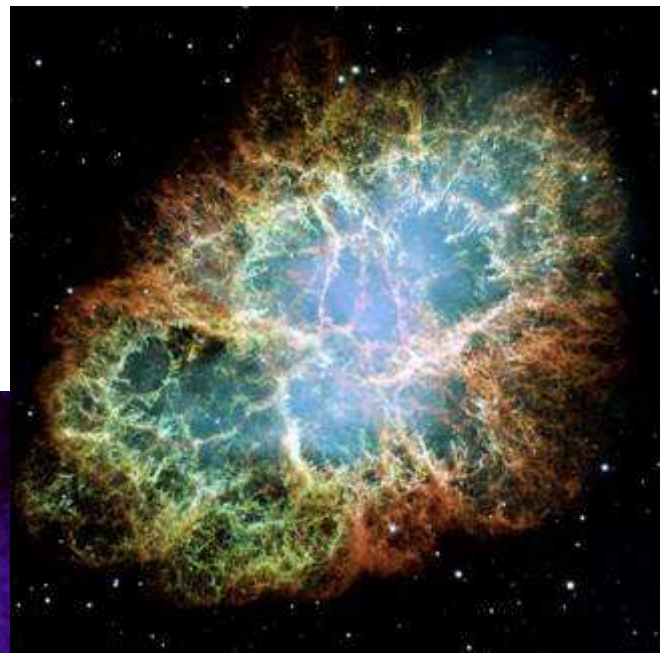
Pulsars and Extreme Physics

Jocelyn Bell Burnell

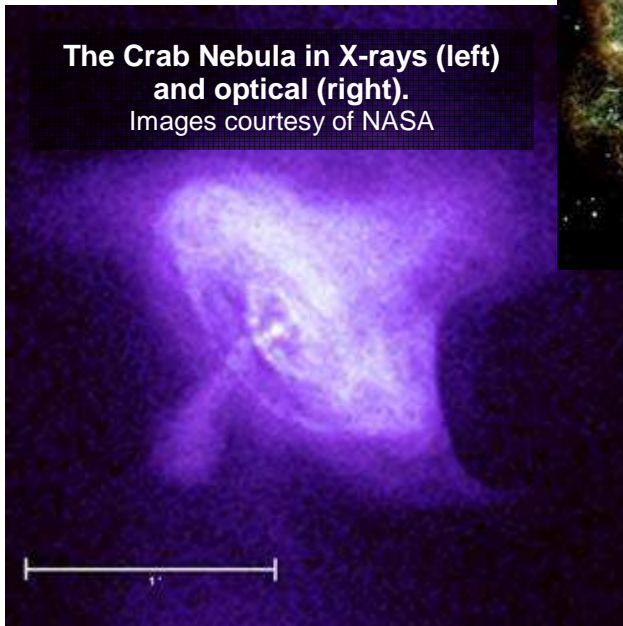
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Daresbury Laboratory

Pulsars were discovered 35 years ago. What do we know about them now and what have they taught us about the extremes of physics?



The Crab Nebula in X-rays (left) and optical (right).
Images courtesy of NASA



With an average density comparable to that of the nucleus, magnetic fields of around 10^8 T and speeds close to c , they have stretched our understanding of the

behaviour of matter. They serve as extremely accurate clocks with which to carry out precision experiments in relativity. Pulsar research continues to deliver exciting, startling and almost unbelievable results.