

NASA's Chandra X-ray Observatory

Exploring the X-ray Universe



2006

The image is a composite of two astronomical photographs. The top portion shows a vibrant nebula with swirling clouds of red and blue gas against a dark background. The bottom portion shows the M82 galaxy, a starburst galaxy, with a grid overlay. The galaxy's structure is visible, showing a dense central region and a diffuse, irregular shape. The text is overlaid on the grid portion of the galaxy image.

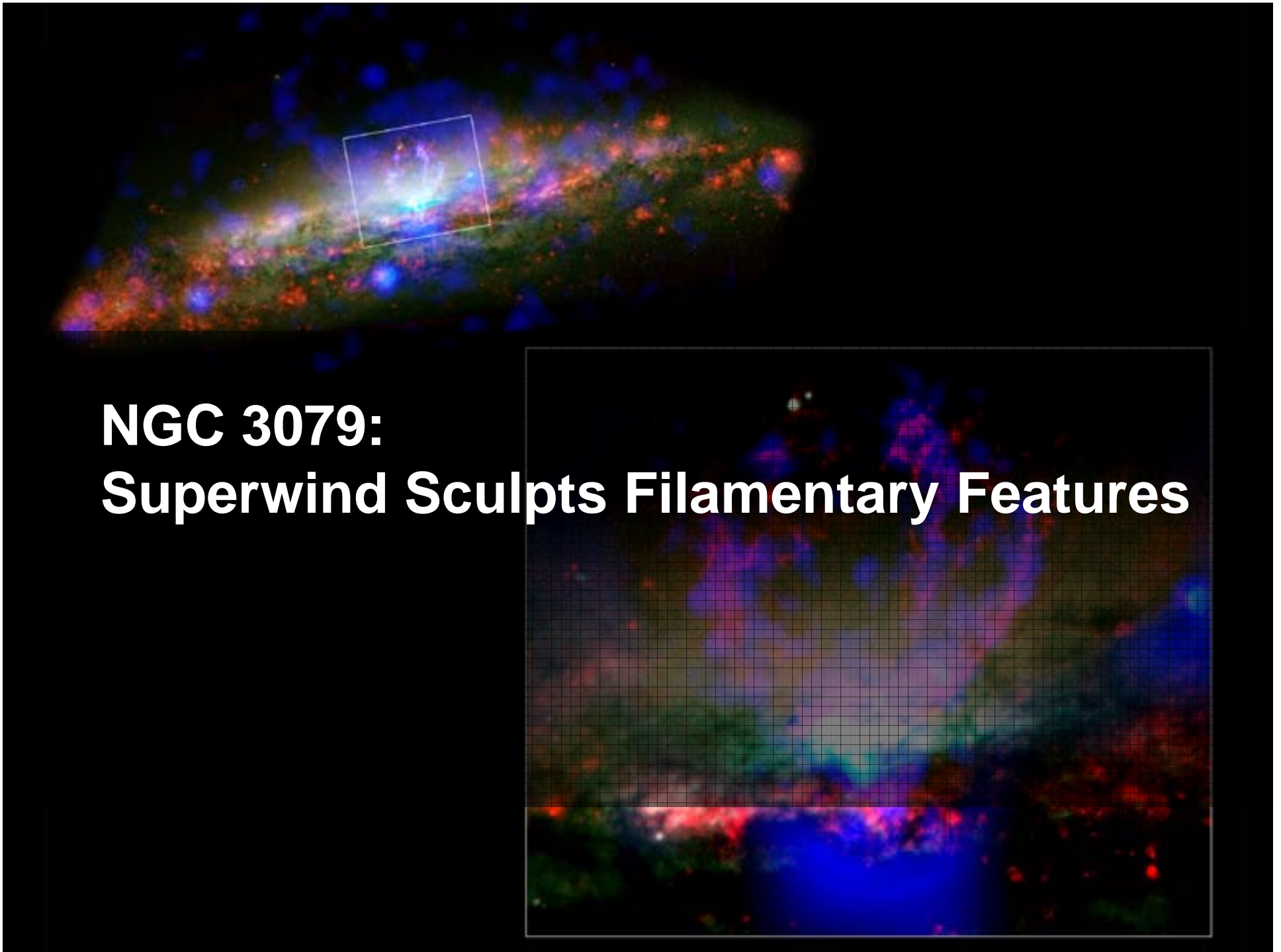
M82:
Stunning View of Starburst Galaxy

The image shows a field of stars from the Andromeda Galaxy (M31). A semi-transparent grid is overlaid on the stars. A color gradient is applied across the field, transitioning from blue on the left to red on the right, which represents a temperature gradient. The text is centered in the lower half of the image.

**Andromeda Galaxy (M31):
The Heat is on in Andromeda's Center**

The image shows a deep-field astronomical view of the Centaurus Galaxy Cluster. The background is a dark, multi-colored nebula with hues of red, orange, yellow, and purple. A fine grid is overlaid on the entire image. Several small, bright green spots are scattered across the field, representing the black holes mentioned in the text.

**NGC 4696 in the
Centaurus Galaxy Cluster:
Black Holes Found to be Green**




**NGC 3079:
Superwind Sculpts Filamentary Features**



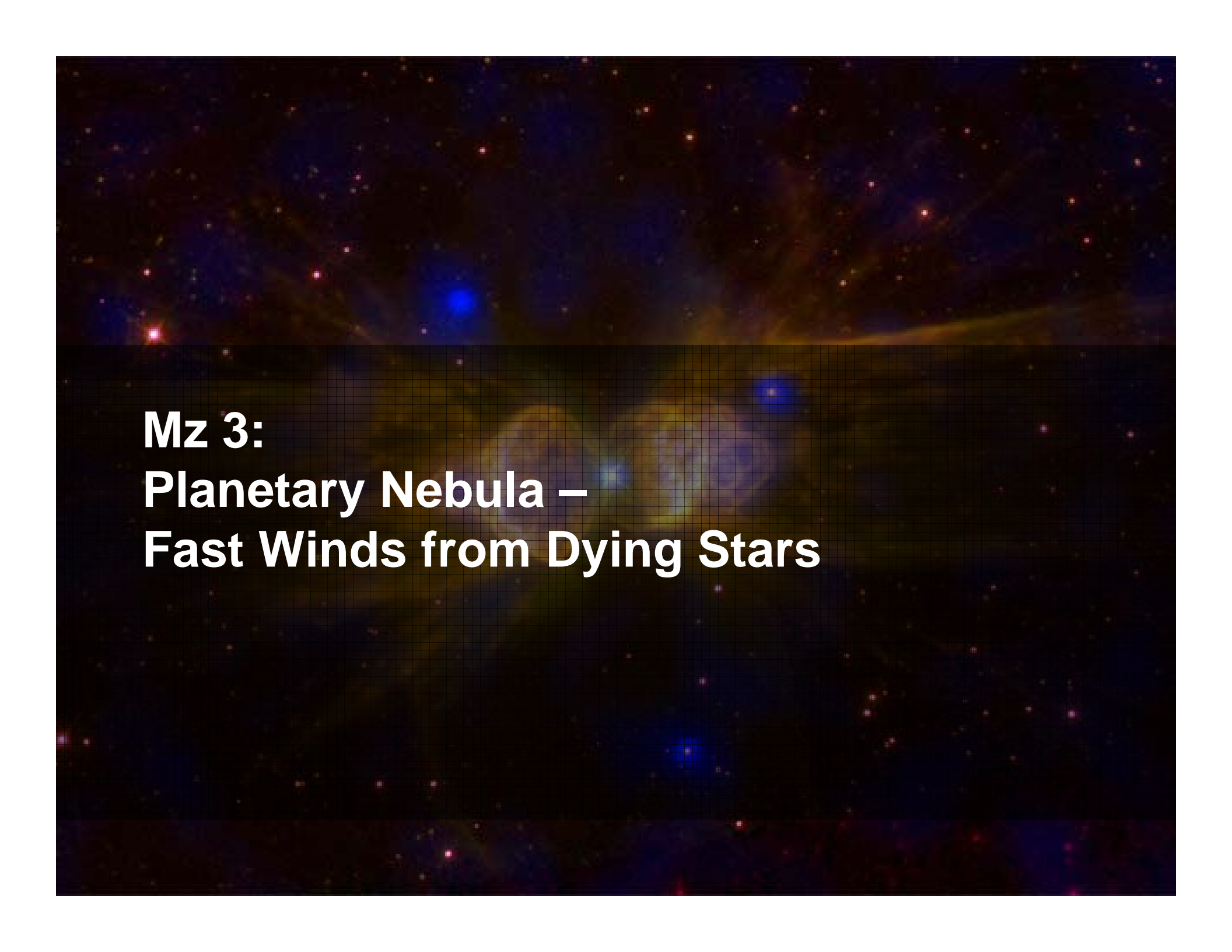
**Puppis A:
Chandra Reveals Cloud Disrupted
by Supernova Shock**

The image shows the Crab Nebula in X-ray, appearing as a bright blue, glowing cloud with a complex, filamentary structure. The central region is particularly bright and dense, with a grid-like pattern overlaid on it. The overall appearance is that of a turbulent, expanding gas cloud.

**Crab Nebula:
Shocking Secrets of the
Crab Pulsar Revealed in X-rays**



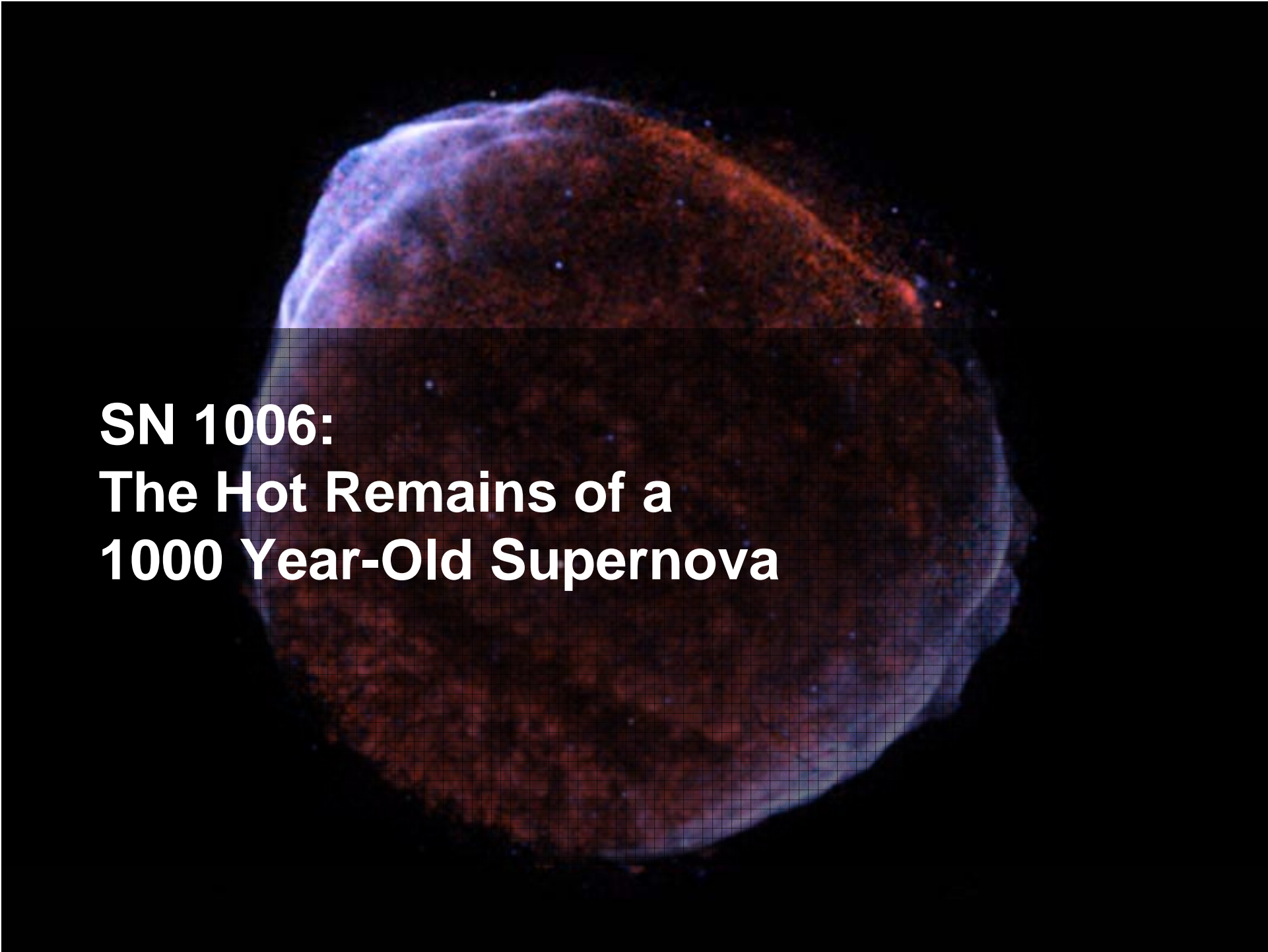
**3C 75 in Abell 400:
Black Holes Determined to be Bound**



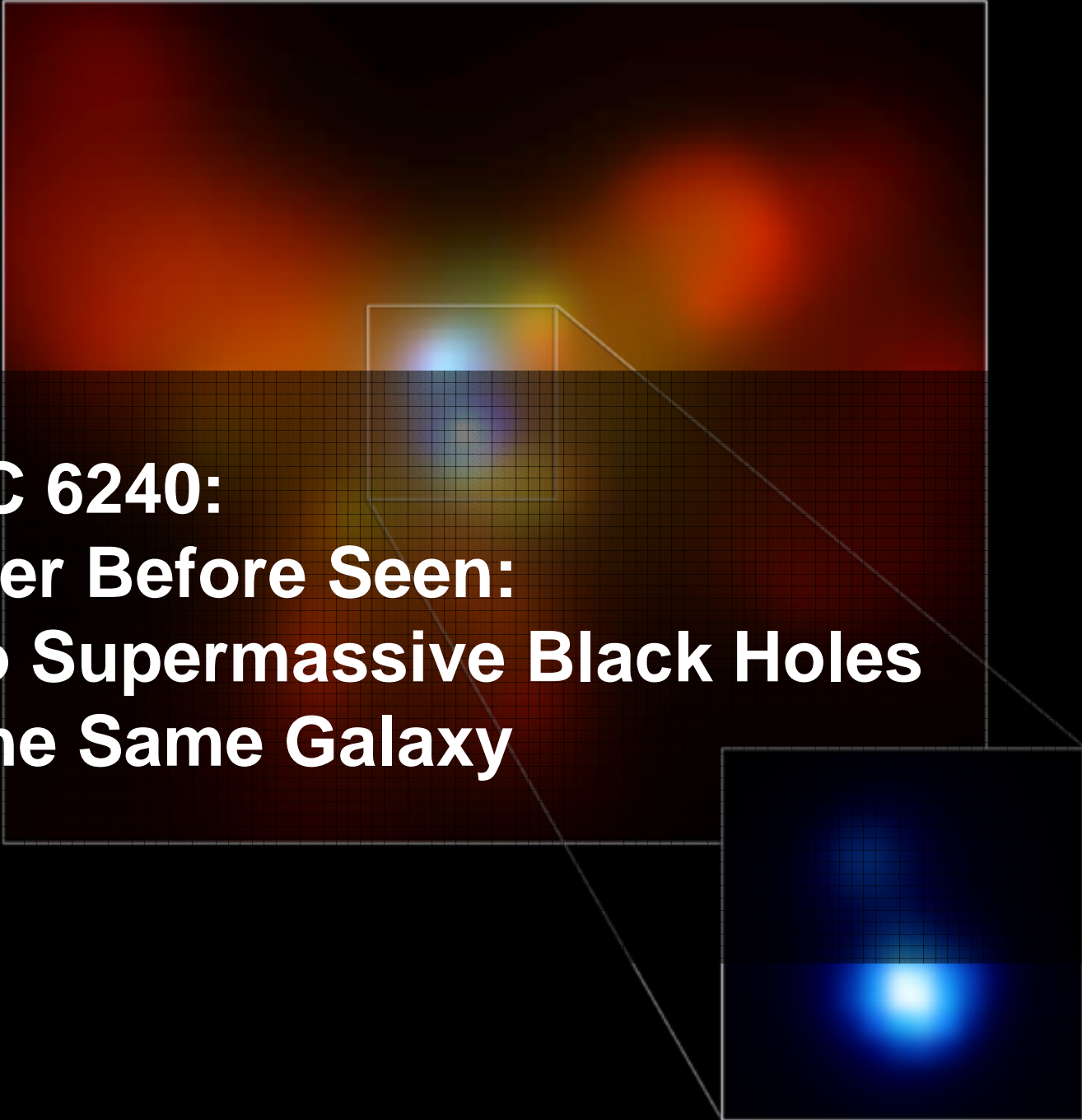
**Mz 3:
Planetary Nebula –
Fast Winds from Dying Stars**

A vibrant, multi-colored image of the Cassiopeia A supernova remnant. The central region is a bright, glowing orange and yellow, surrounded by a complex, filamentary structure of blue, purple, and red. The entire remnant is set against a dark background filled with numerous small, yellow and white stars.

**Cassiopeia A:
Chandra's Celestial Fireworks**




**SN 1006:
The Hot Remains of a
1000 Year-Old Supernova**



**NGC 6240:
Never Before Seen:
Two Supermassive Black Holes
in the Same Galaxy**



**Centaurus A:
Arcs Tell the Tale of a Giant Eruption**



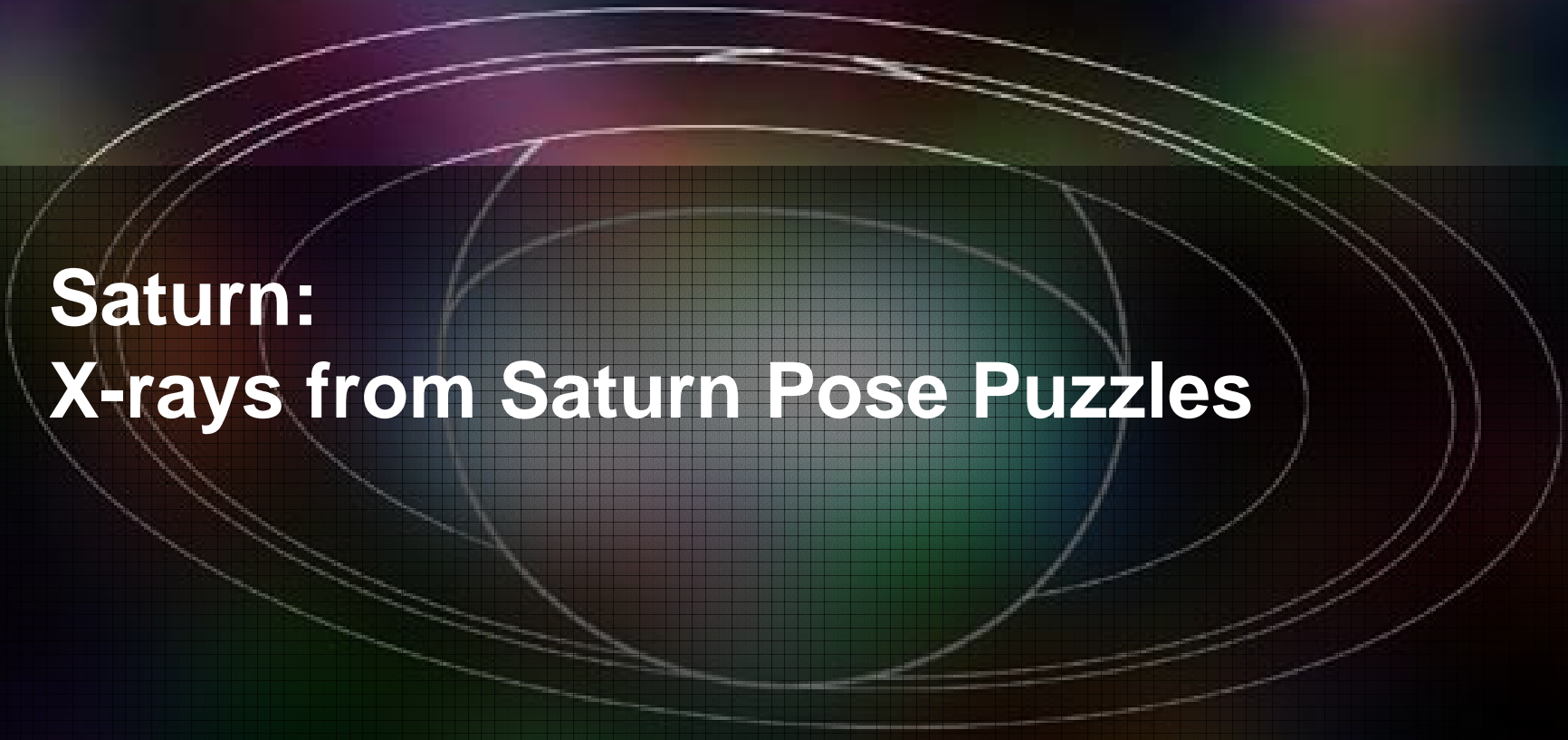
**G292:
Chandra Looks at the Aftermath
of a Massive Star Explosion**

A vibrant field of stars in shades of blue, purple, and pink, with a grid overlay in the center.

**Trumpler 14:
Bright Young Stars Mix It Up**



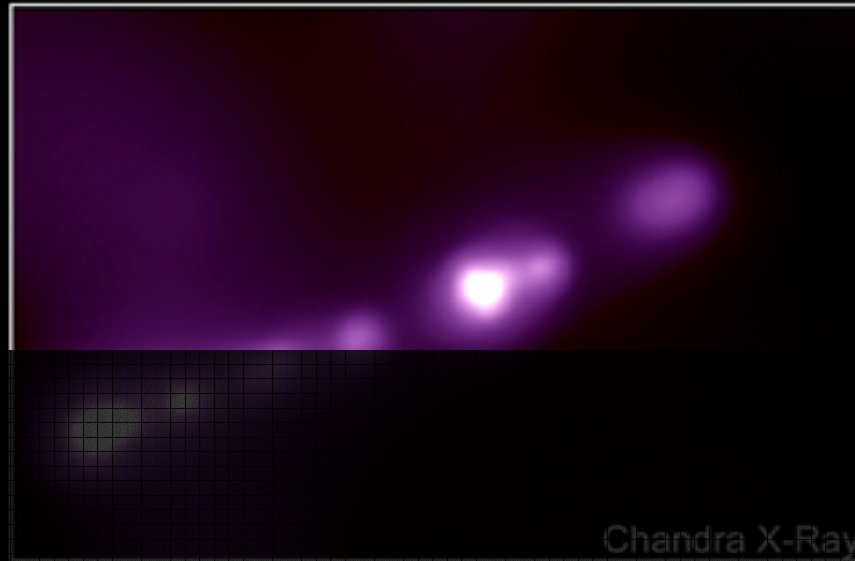
**Sagittarius A*:
Milky Way Monster Stars in
Cosmic Reality Show**



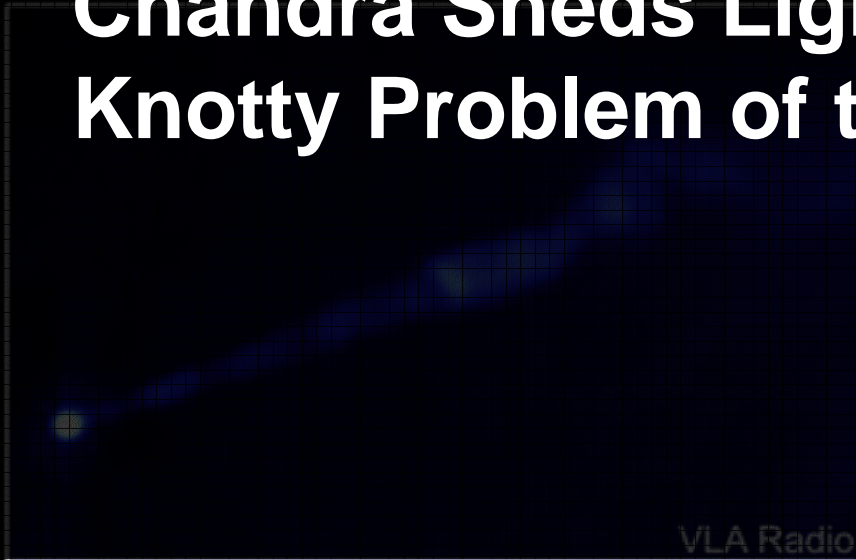
**Saturn:
X-rays from Saturn Pose Puzzles**

M87:

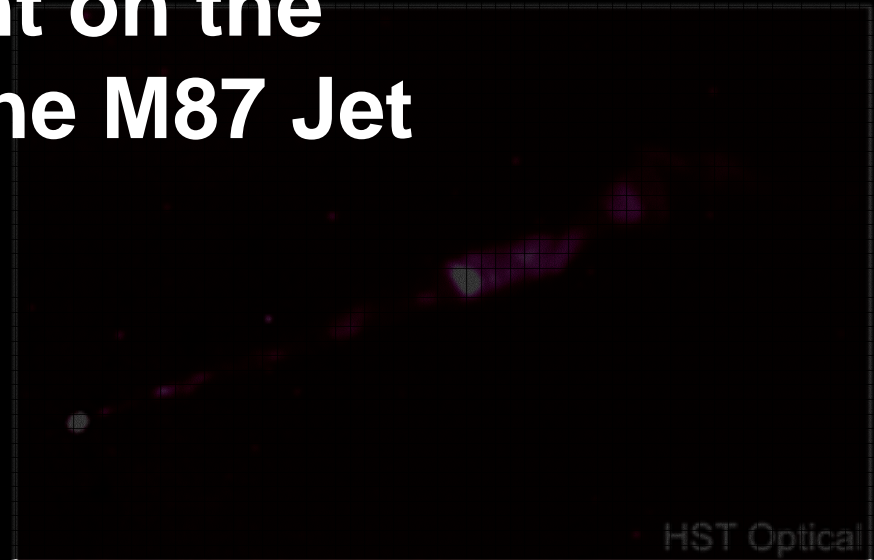
Chandra Sheds Light on the Knotty Problem of the M87 Jet



Chandra X-Ray



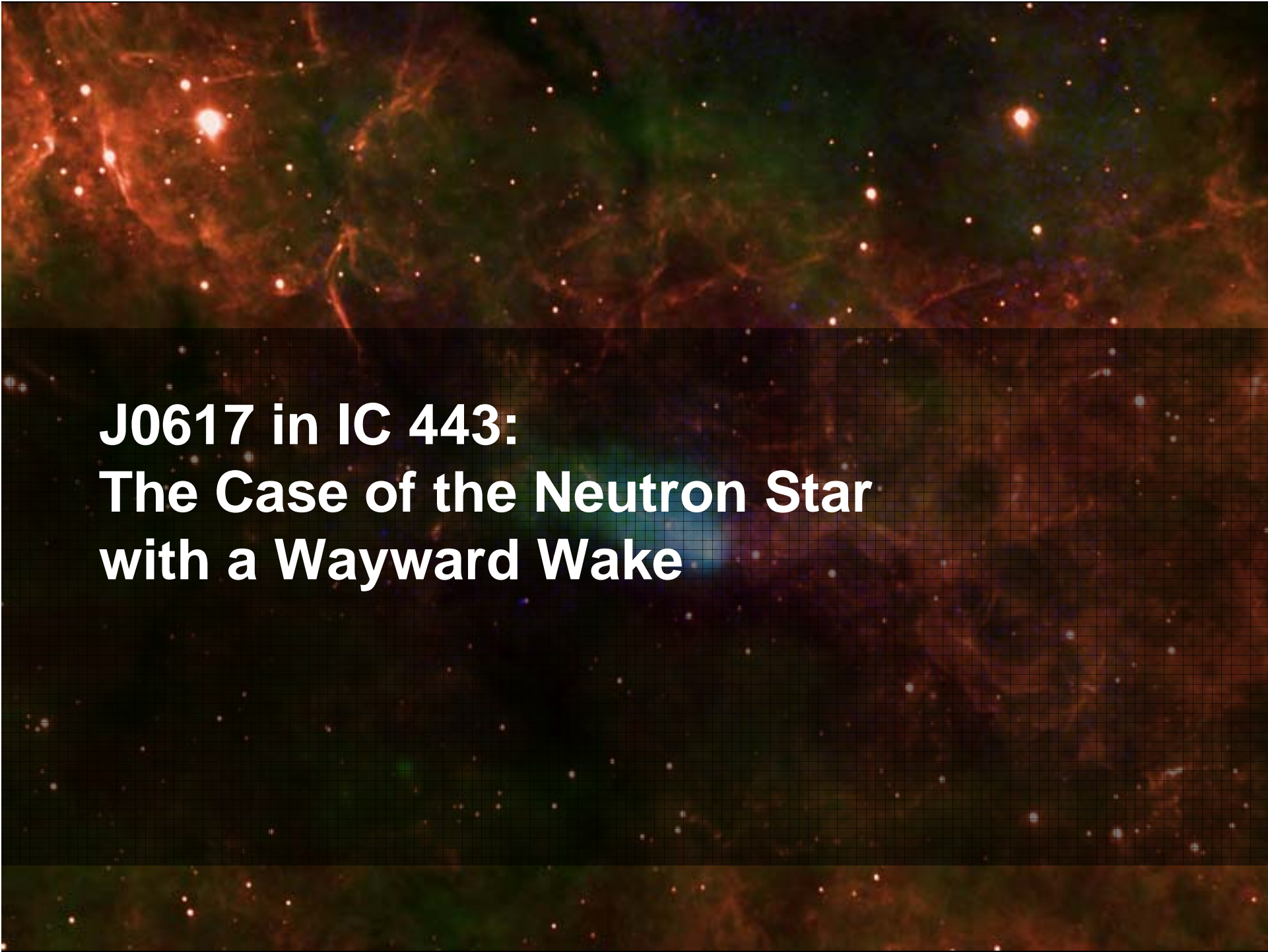
VLA Radio



HST Optical



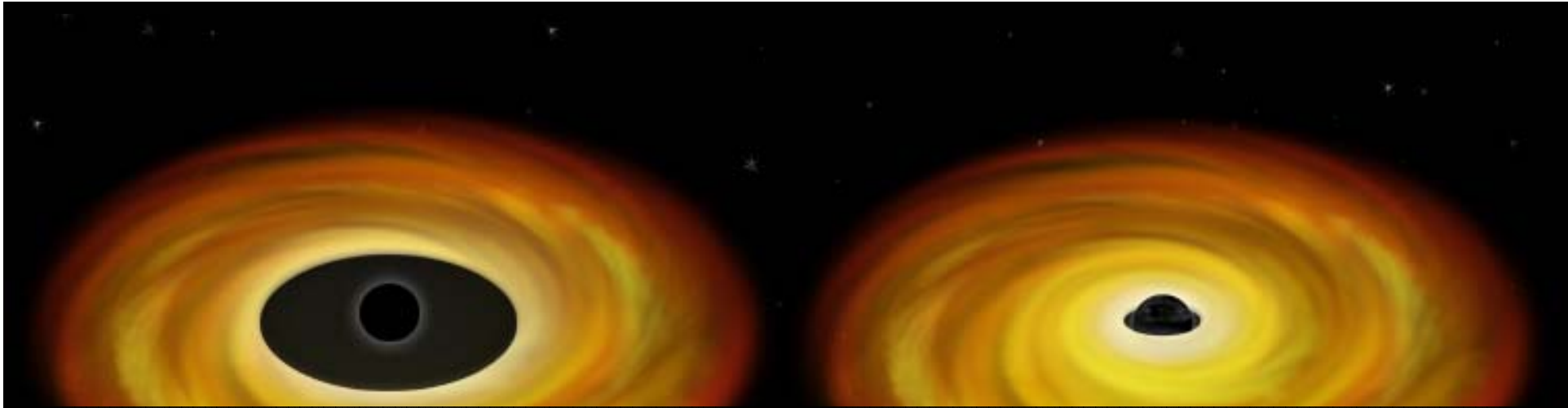
**M83:
X-rays Reveal Nature of Spiral Galaxy's
Boisterous Activity**



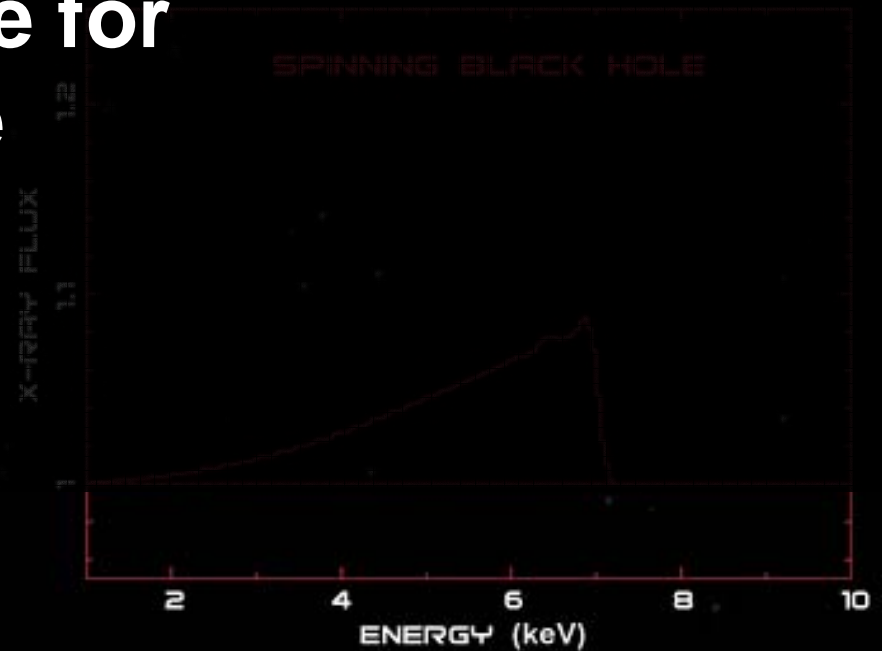
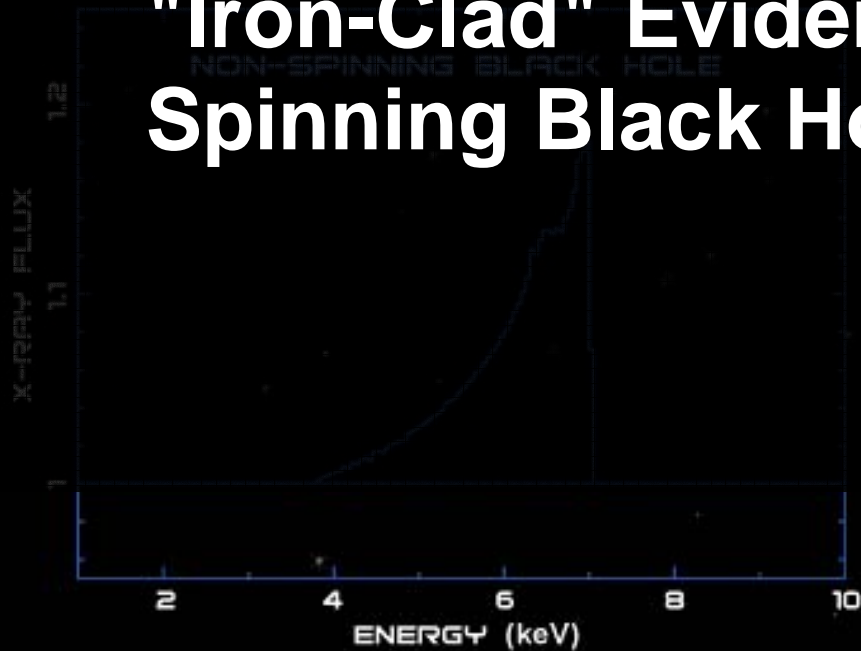
**J0617 in IC 443:
The Case of the Neutron Star
with a Wayward Wake**


A circular, multi-colored nebula with a grid overlay, set against a black background. The nebula shows a spectrum of colors including red, orange, yellow, green, cyan, blue, and purple. The grid is composed of small, light-colored squares.

**DEM L71:
Supernova Origin Revealed**



Cygnus X-1, XTE J1650-500 & GX 339-4: "Iron-Clad" Evidence for Spinning Black Hole



A multi-wavelength image of the Kepler's Supernova Remnant, showing a complex, multi-colored structure with bright blue and purple hues at the top and darker, more diffuse regions below. The remnant is set against a black background.

**Kepler's Supernova Remnant:
Unravelling a 400-Year Old
Supernova Mystery**




**M86:
Cluster's Gain is Galaxy's Loss**

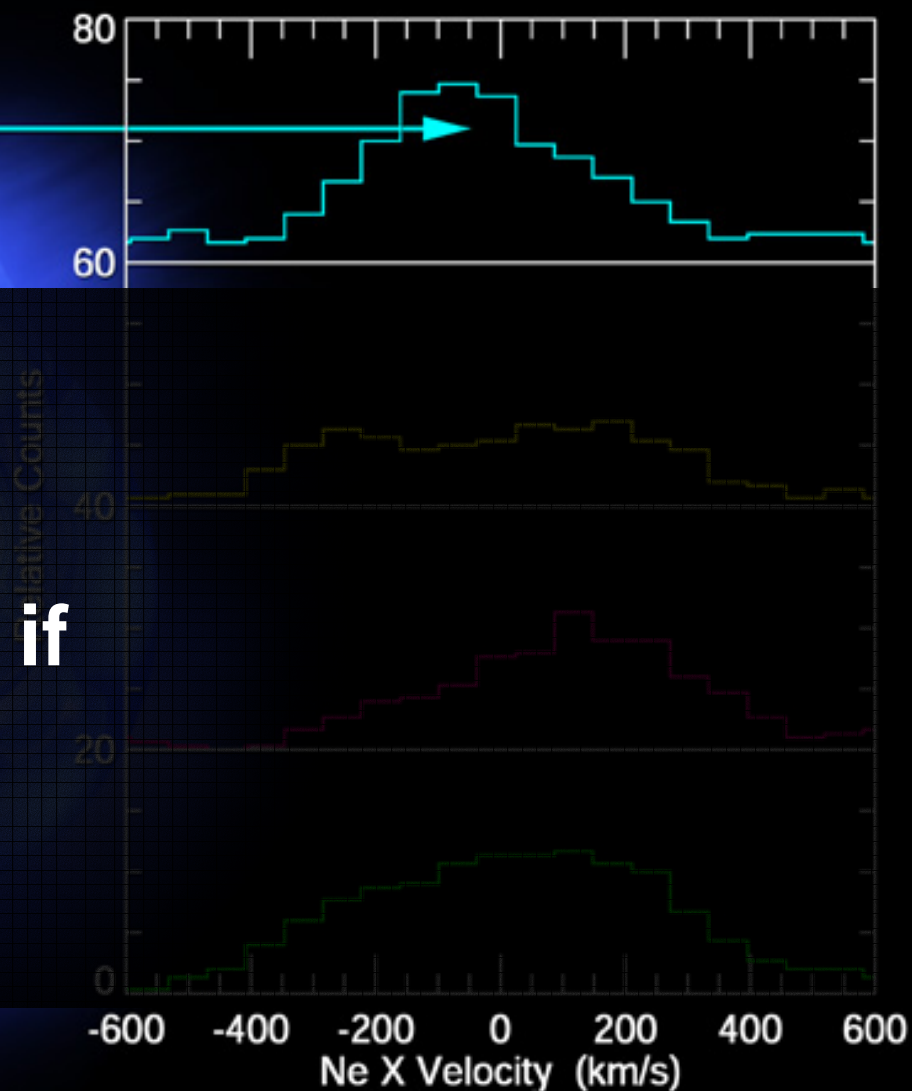
**A2029:
Hot News for Cold Dark Matter**




**G21.5-0.9:
Cosmic Shell-Seekers Find a Beauty**



44i Bootis: The Terrible Twos: What Might Happen if Our Sun had a Twin






**The Crescent Nebula:
Live Fast, Blow Hard And Die Young**



**Tycho's Supernova Remnant:
Tycho's Remnant Provides Shocking
Evidence for Cosmic Rays**



**SNR 0103-72.6:
Chandra Finds Rich Oxygen Supply
Inside Glowing Ring**

A vibrant, multi-colored nebula with a grid overlay. The nebula features a mix of red, orange, yellow, green, blue, and purple hues, set against a dark background. A fine grid pattern is visible across the entire image, suggesting a digital or scientific visualization. The text is overlaid on the left side of the image.

**The Tarantula Nebula:
A Drama Of Star Formation
And Evolution**

A field of stars, including many bright blue ones, against a dark background. The stars are scattered across the frame, with a higher concentration in the upper right quadrant. The colors range from bright blue to yellow and red.

Orion Nebula:

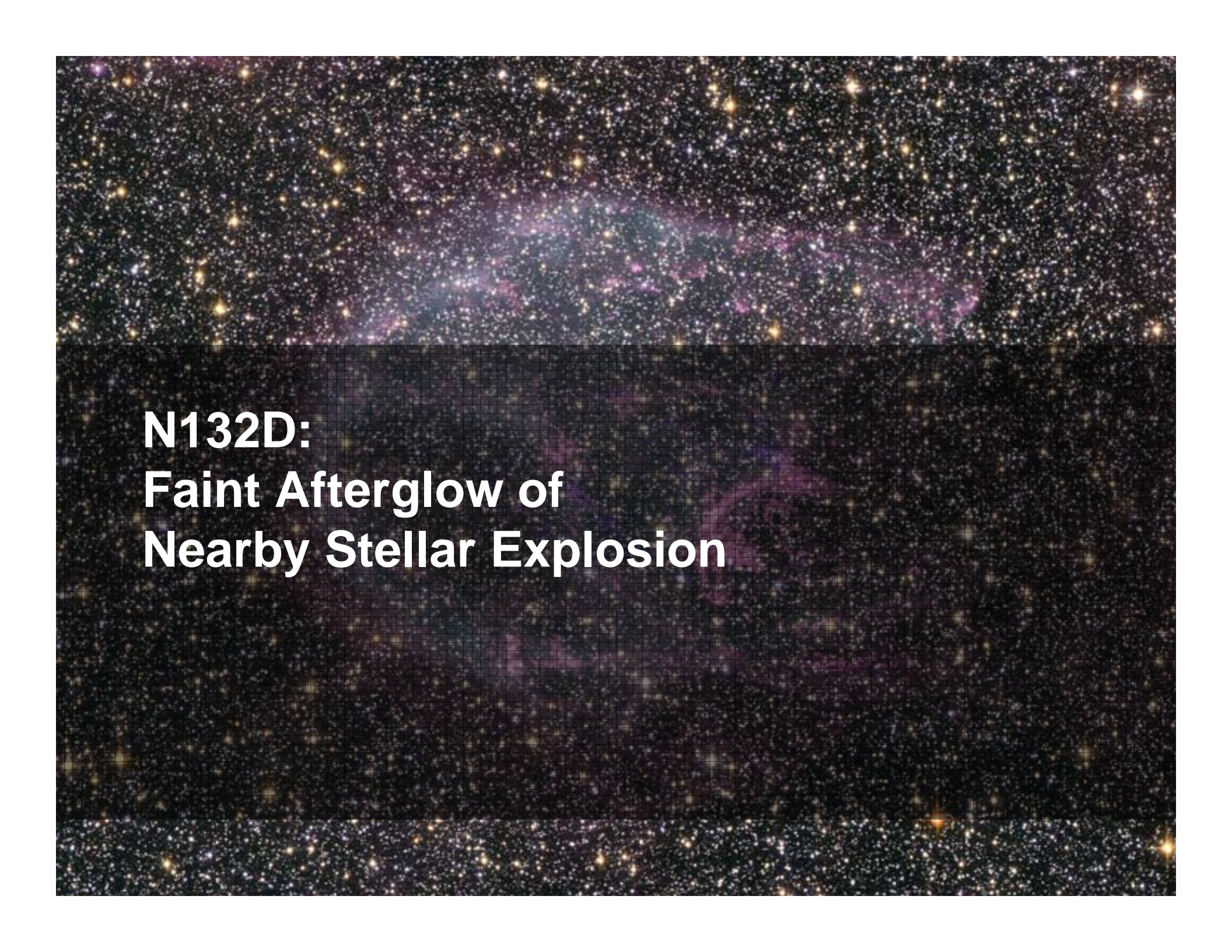
**Planetary Protection: X-ray Super-Flares
Aid Formation of "Solar Systems"**




**Jupiter:
Hot Spot Makes Trouble For Theory**



**Galactic Center:
Chandra Takes In The Bright Lights,
Big City Of The Milky Way**



**N132D:
Faint Afterglow of
Nearby Stellar Explosion**



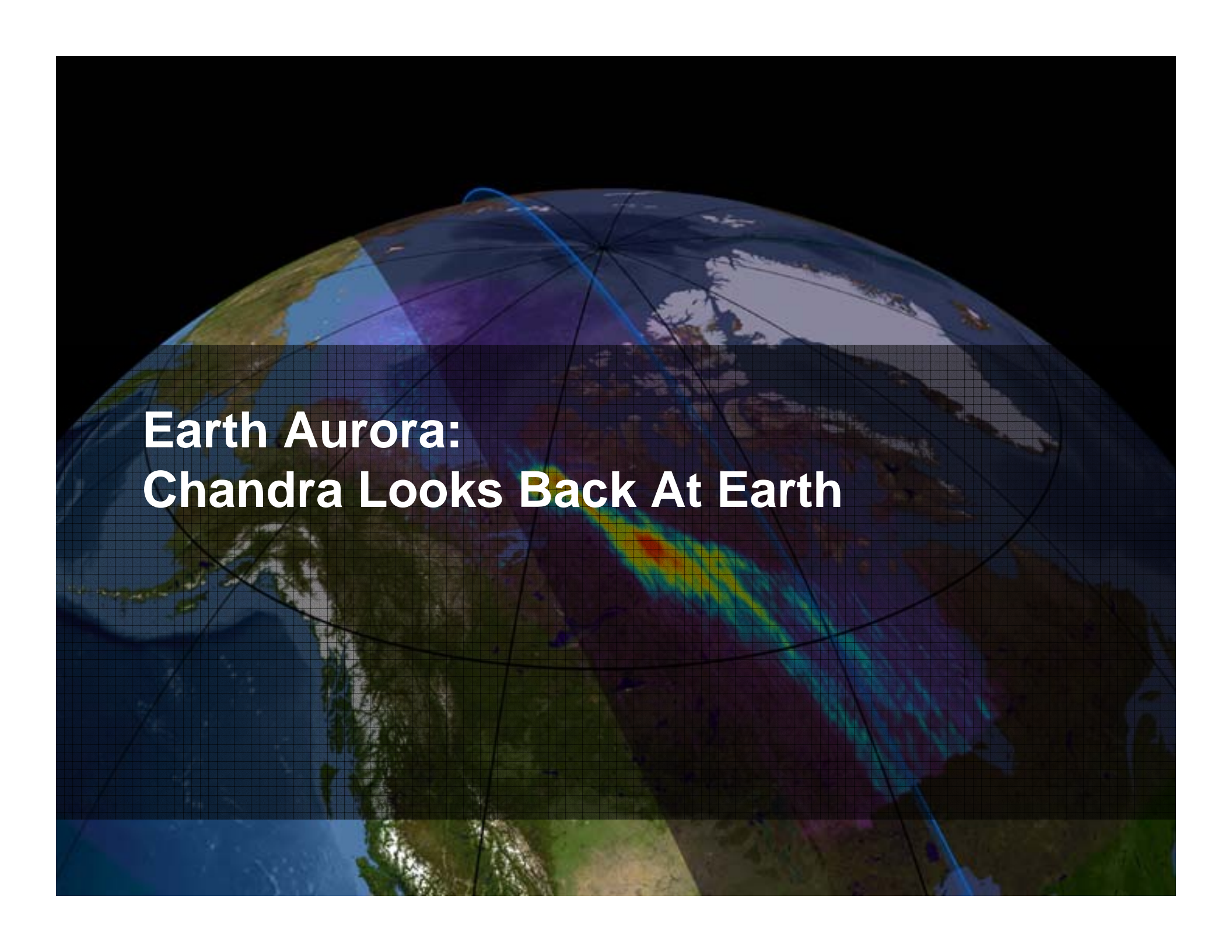
**Abell 2125:
Chandra Catches Early Phase
of Cosmic Assembly**




**Cartwheel Galaxy:
Astronomers Do Flips Over
Cartwheel Galaxy**



**Perseus Cluster:
Chandra Proves Black Hole
Influence is Far Reaching**



Earth Aurora: Chandra Looks Back At Earth



**NGC 2841:
Galactic Chimneys Turn Up the Heat**



**Seeing the Universe in a Whole
New Light with the
Chandra X-ray Observatory**

Chandra X-ray Observatory

