





Her career

1974-1977 PhD at University College
London's Mullard Space Science
Laboratory (MSSL)

1977 – 1979 CfA, Harvard &
Smithsonian

1979- MSSL (EXOSAT foundational X-
ray astronomy work e.g. clusters,
AGN...)

1990s – MSSL + XMM RGS Project
Manager

2000s – MSSL, XMM, and planets

2010s – MSSL, XMM, Planets,
SMILE...



“When I came to MSSL in 1990 I sensed an essence to the place: Achievement, competence, hard work, commitment, fairness, excellence, community, pragmatism, encouragement and as few barriers as possible to academic growth. On reflection I see that when I talk of MSSL in this way, I find I'm describing Graziella. ”

“Graziella was one of the few people internationally who excelled in both astrophysics and solar system studies”



Who she was

‘Dedicated to her science and to her students. A very great loss to everyone. ‘

“how passion and patience can shape an extraordinary lifetime researcher. “

“Her words were often few in number but always carried a great deal of wisdom.”

“ There are many ups on the path to realising a complex project but also a few downs. I could always rely on Graziella's positive outlook to get us through those periods.“

“a mentor to many young scientists. I did not get the impression she saw herself this way, but that she just acted as she saw fit; with kindness and generosity. ”

“I was just finishing my PhD and Graziella said to me that she was still learning too and getting used to the idea of being a Co-PI. It was a humble remark from someone who was an incredible leader already. “

“Everyone who was fortunate to meet and work with Graziella, recognized that she was the embodiment of her name, "grace". It was inspiring to see her keenness to learn new things, despite her years of experience in X-ray data analysis. ”

“I can still only aspire to her level of organisational skill and attention to detail... Her ability to assess all the relevant information in a difficult situation and calmly deal with any crisis

Things many people said: 'warmly welcomed', 'gentle smile with a knowing expression' , her knowledge, her kindness and compassion, her wisdom, sense of fairness, her calming influence, her infinite generosity with her time.

I can still hear her saying "Wow! Fantastic!" Or "Good, good! Carry on!".



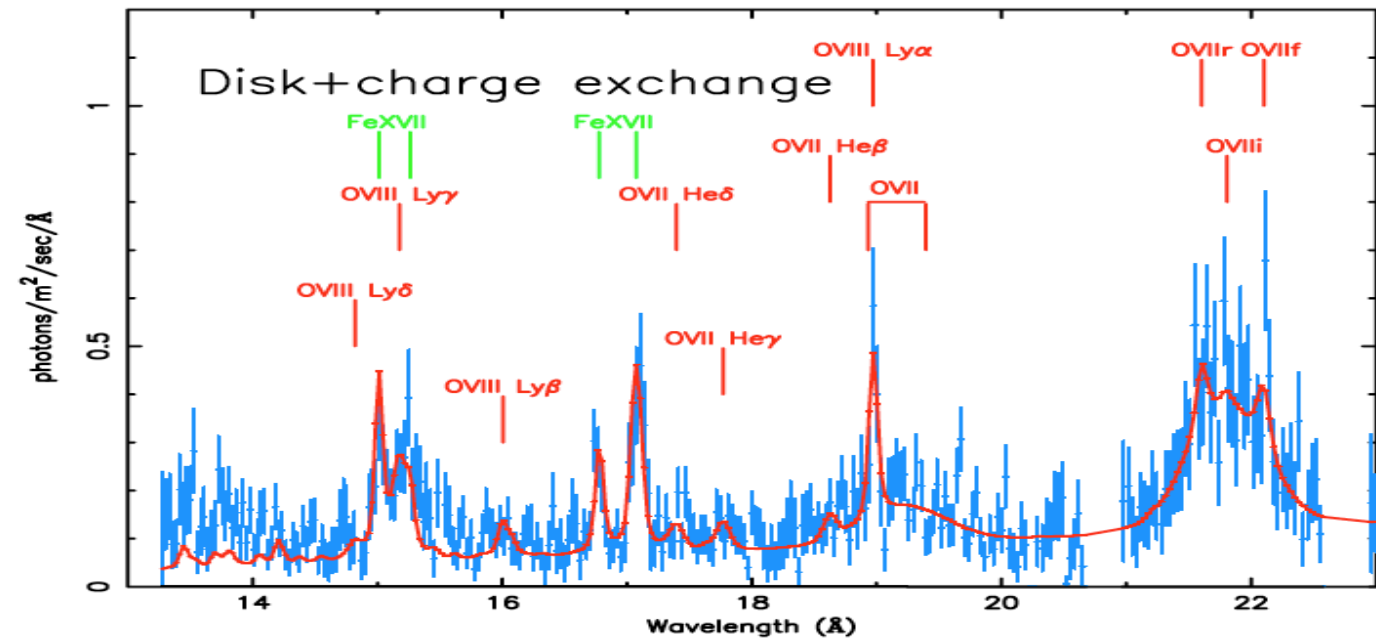
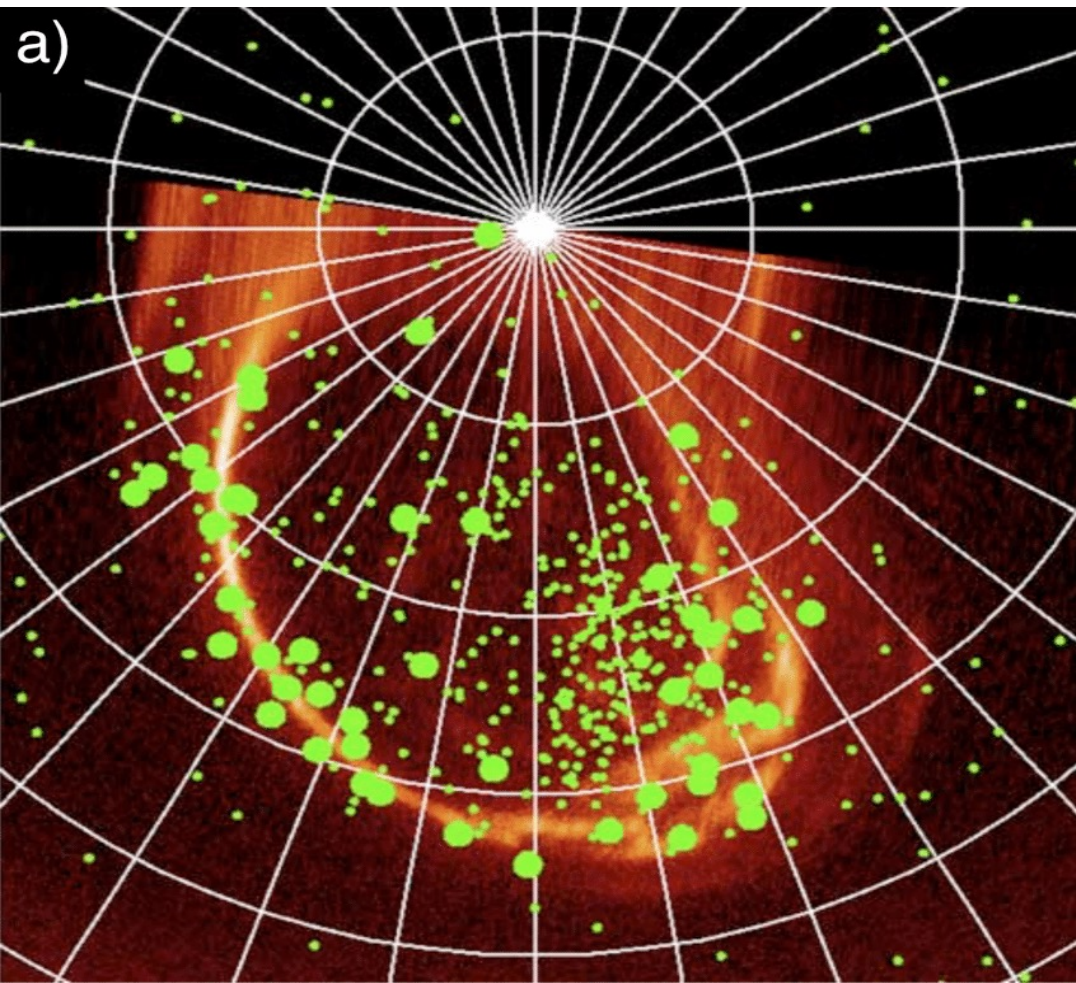
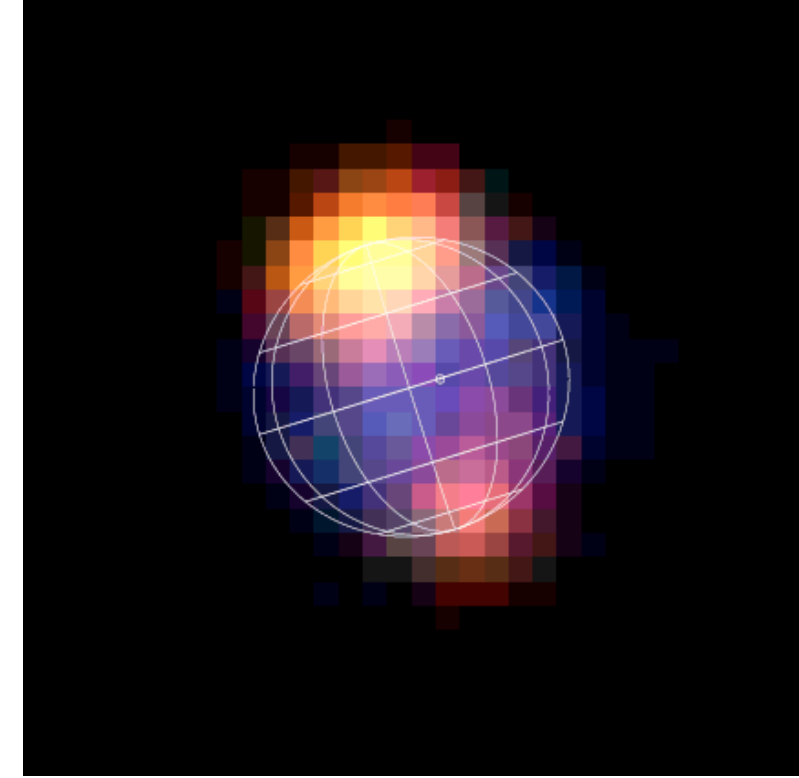
Her Supervision and teaching

- “I remember that she marked up my draft thesis in pencil, a precise but very gentle style.”
- “She knew that I lacked self-belief and it felt like she decided to believe in me enough for the both of us”
- “Her passion and enjoyment for physics was infectious, and she was always excited to learn something new or explore a new idea when studying the data.”



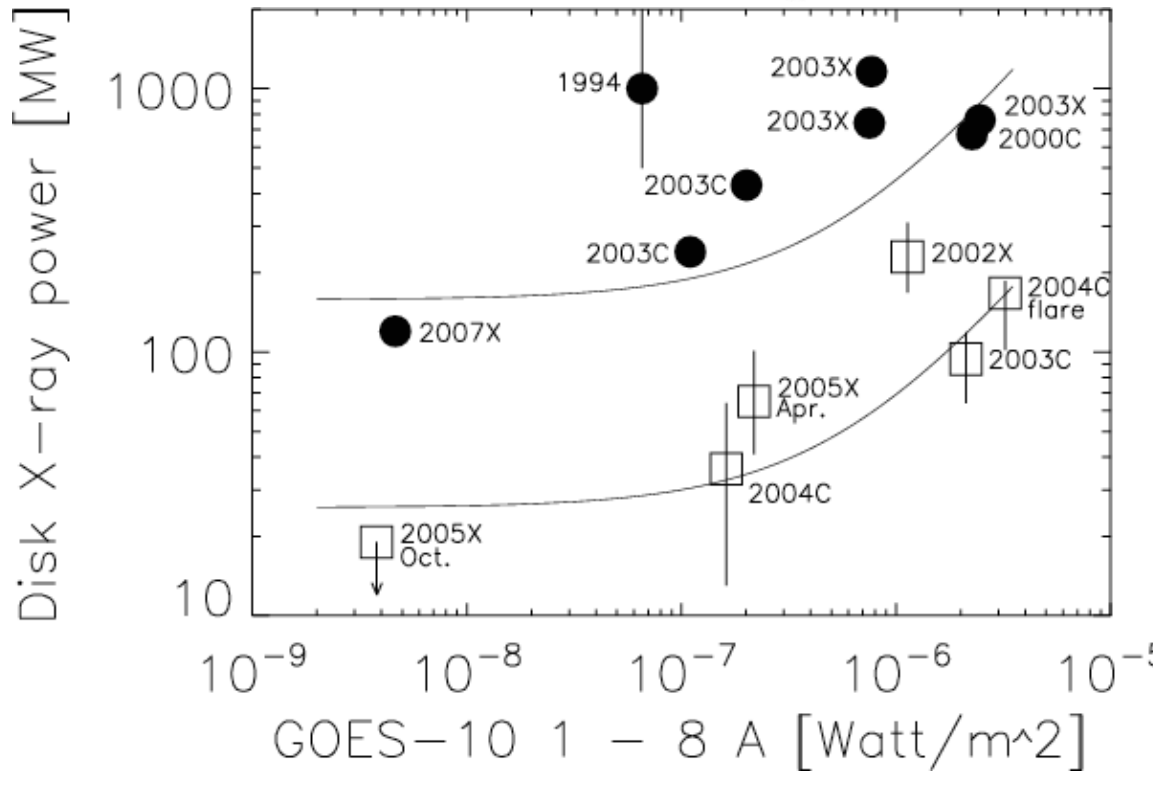
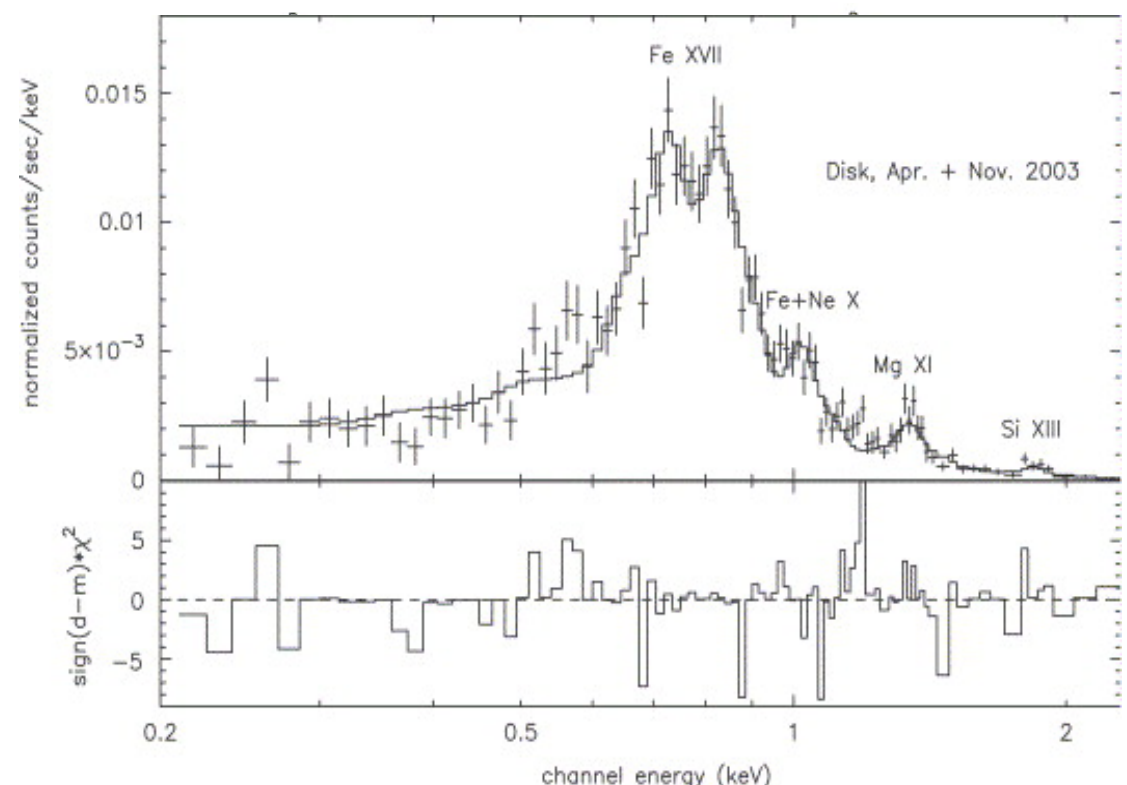
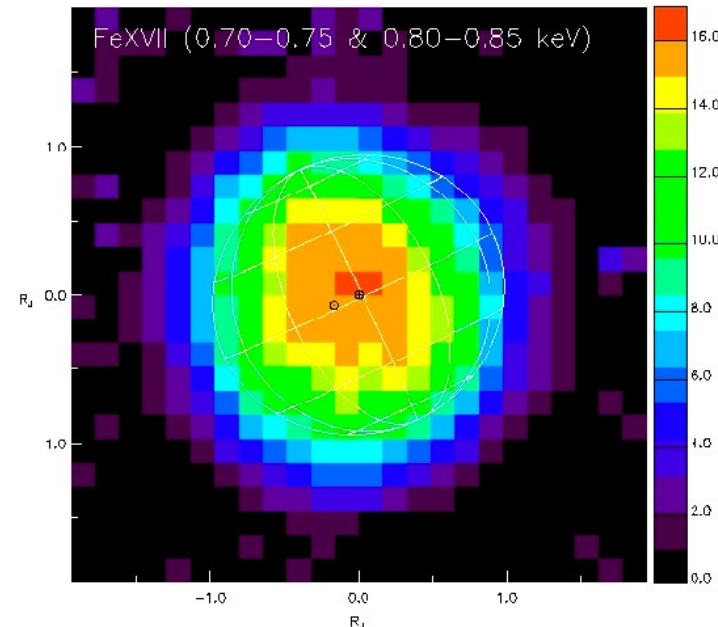
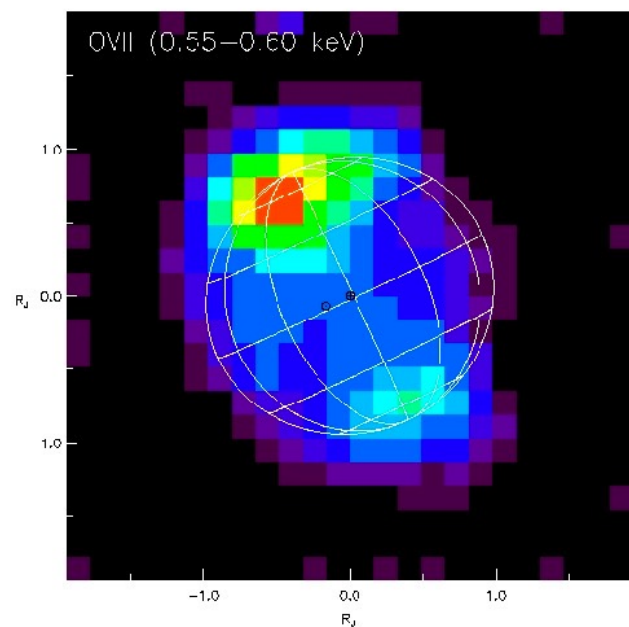
Planetary X-rays: Aurorae

- Provided the first XMM observations of Jupiter (B-R+ 2004)
- Confirmed the CX source of Jupiter's aurorae, with the beautiful RGS data from the instrument she project managed (B-R+ 2007)
- Discovered the hard X-ray bremsstrahlung component of Jupiter's aurorae and connected it to the UV emissions (B-R+, 2007; 2008)



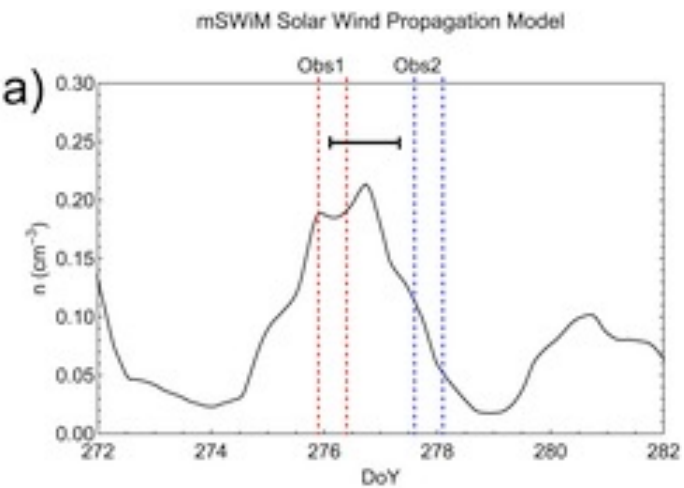
Planetary X-rays: Equatorial Emissions

- Identified spectral morphology dependences of the X-ray emissions from the equator vs aurorae
- Firmly connected these to solar emissions (B-R+ 2004, 2007b)
- Discovered the trend with solar cycle for Jupiter and Saturn (B-R+ 2010)



CX Auroral Enhancements During a CME

- Planned a beautiful observation campaign that perfectly fulfilled her predictions of solar wind driving of auroral variability at Jupiter
- CX (and bremsstrahlung) X-ray aurorae brighten (and change timing signatures) during solar wind compressions
- Her imprint is clear in all her students work, and many expressed that they hope that her legacy lives on through their work



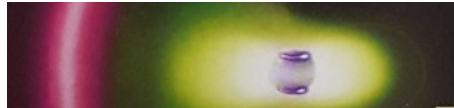
If at first you don't succeed...



2007



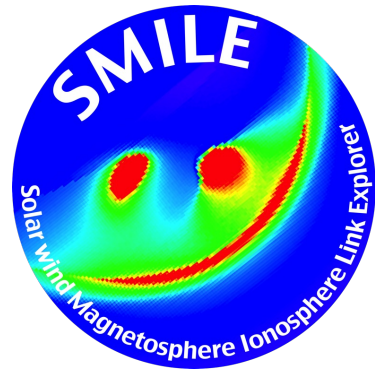
2010



2010

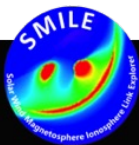


2012

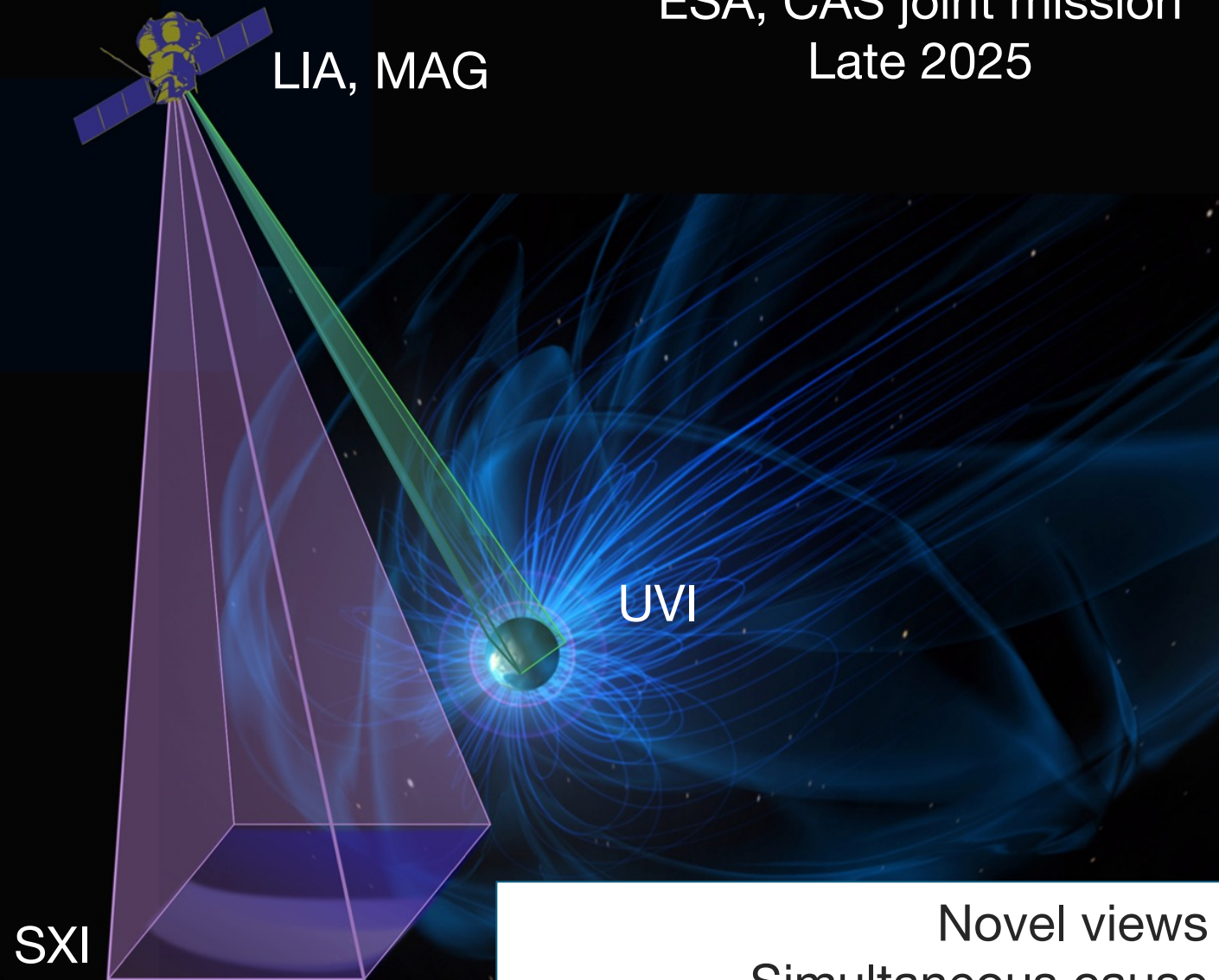


2015





ESA, CAS joint mission
Late 2025



Novel views
Simultaneous cause & effect
Transform magnetospheric-ionospheric coupling



