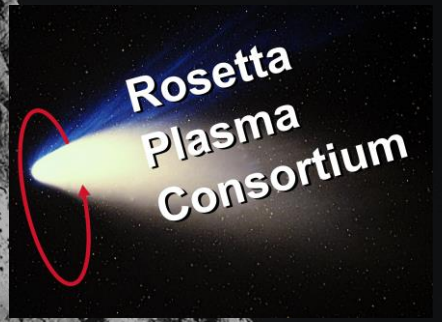
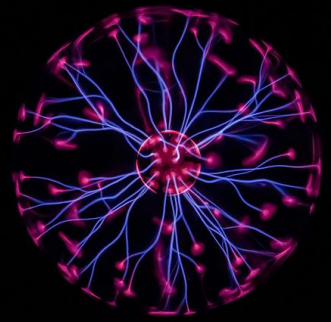
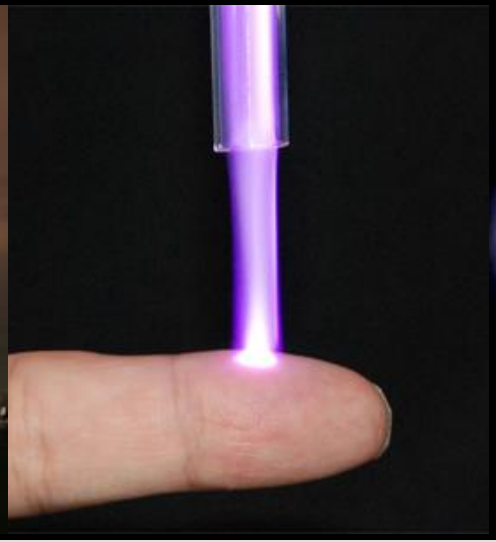
Rosetta End of Mission

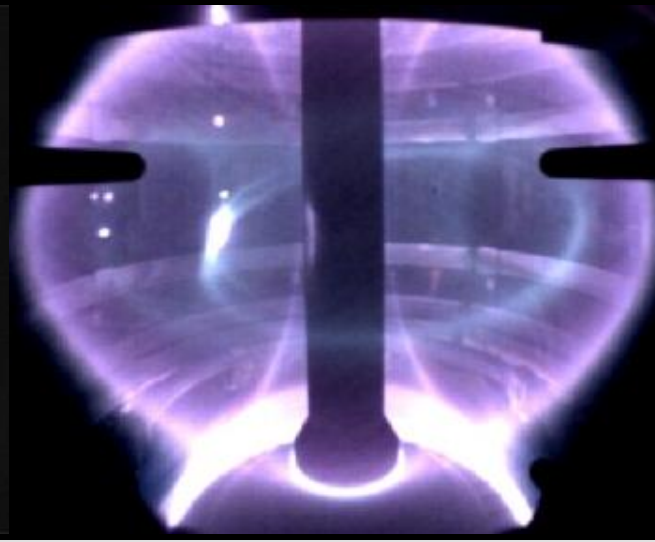
THE SINGING COMET



What is a plasma?



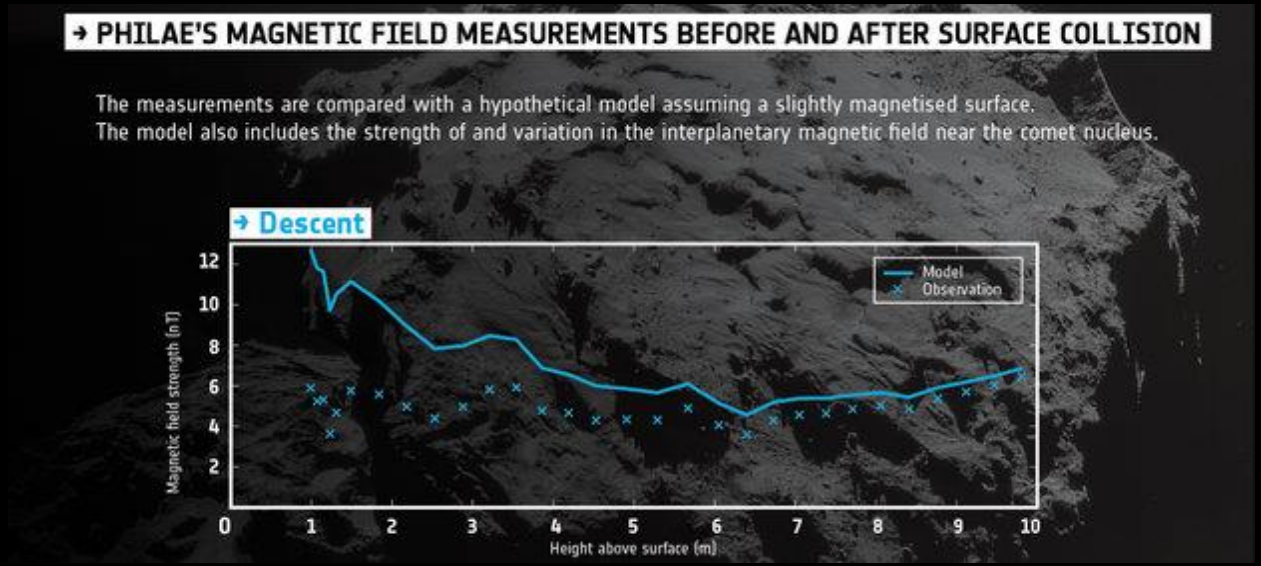




Space Plasma at the Comet

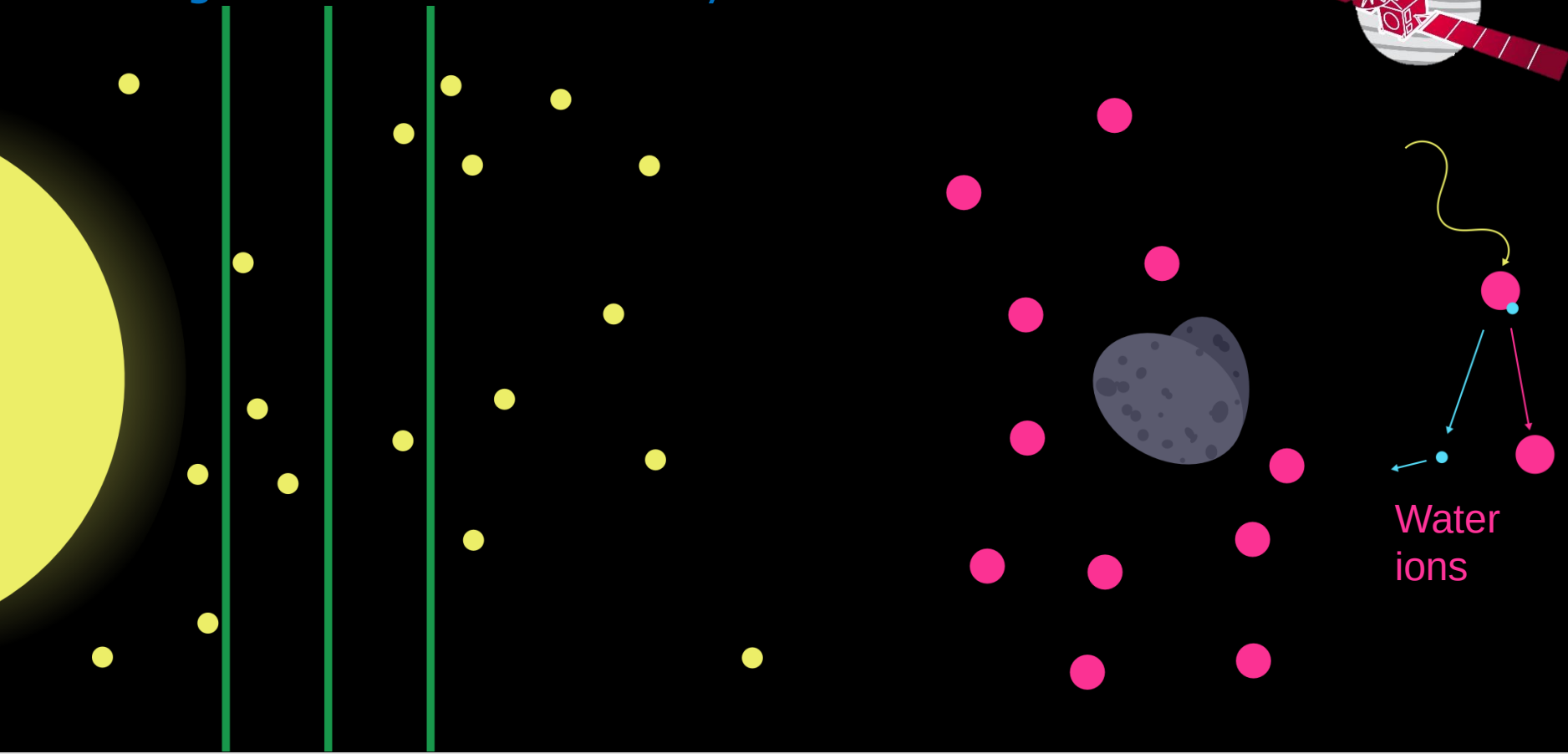
Air:
$10^{19}/cm^3$

Space Plasma:
$5/cm^3$

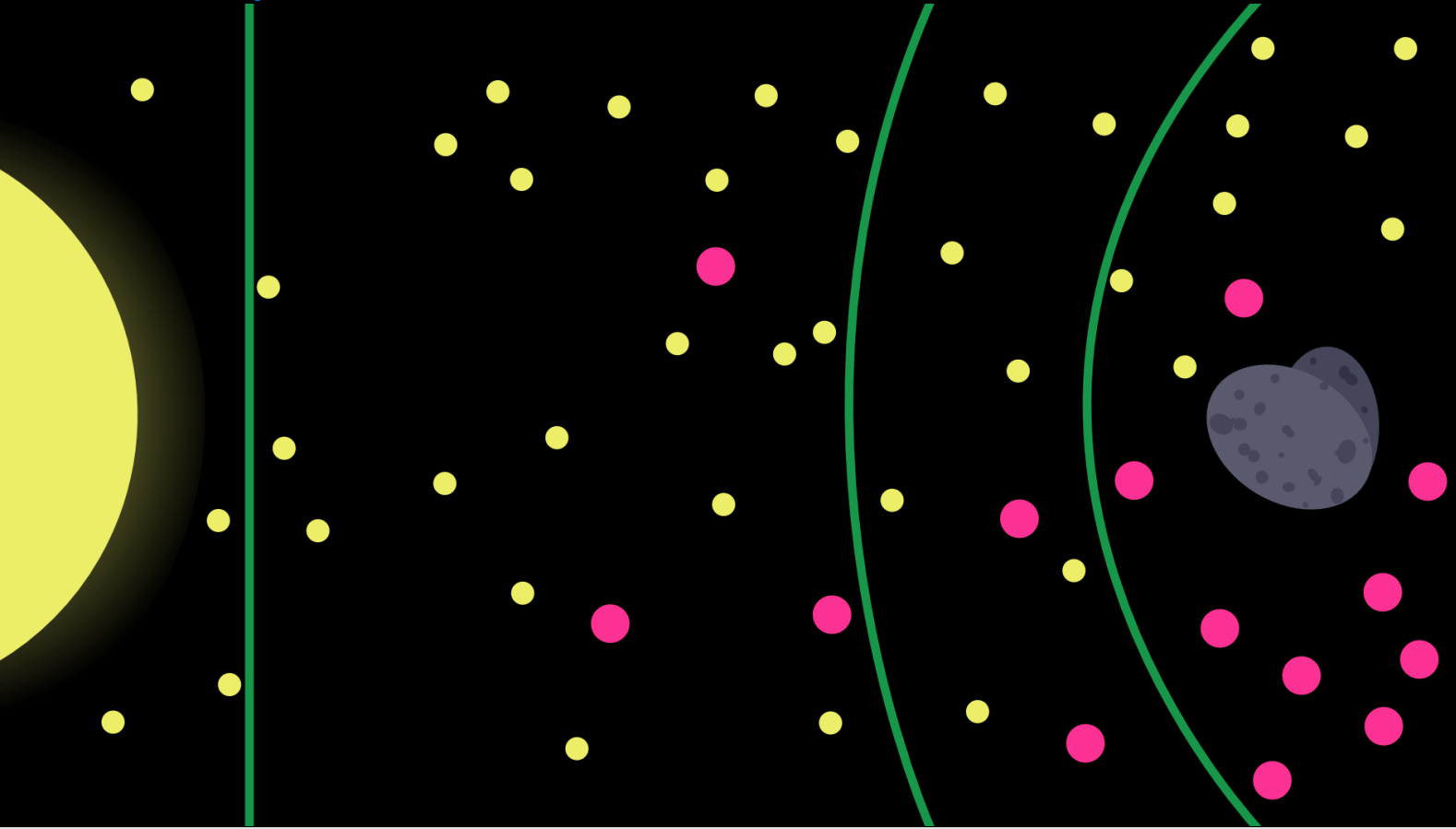


Protons and interplanetary magnetic field

The Ingredients of a Cometary Plasma

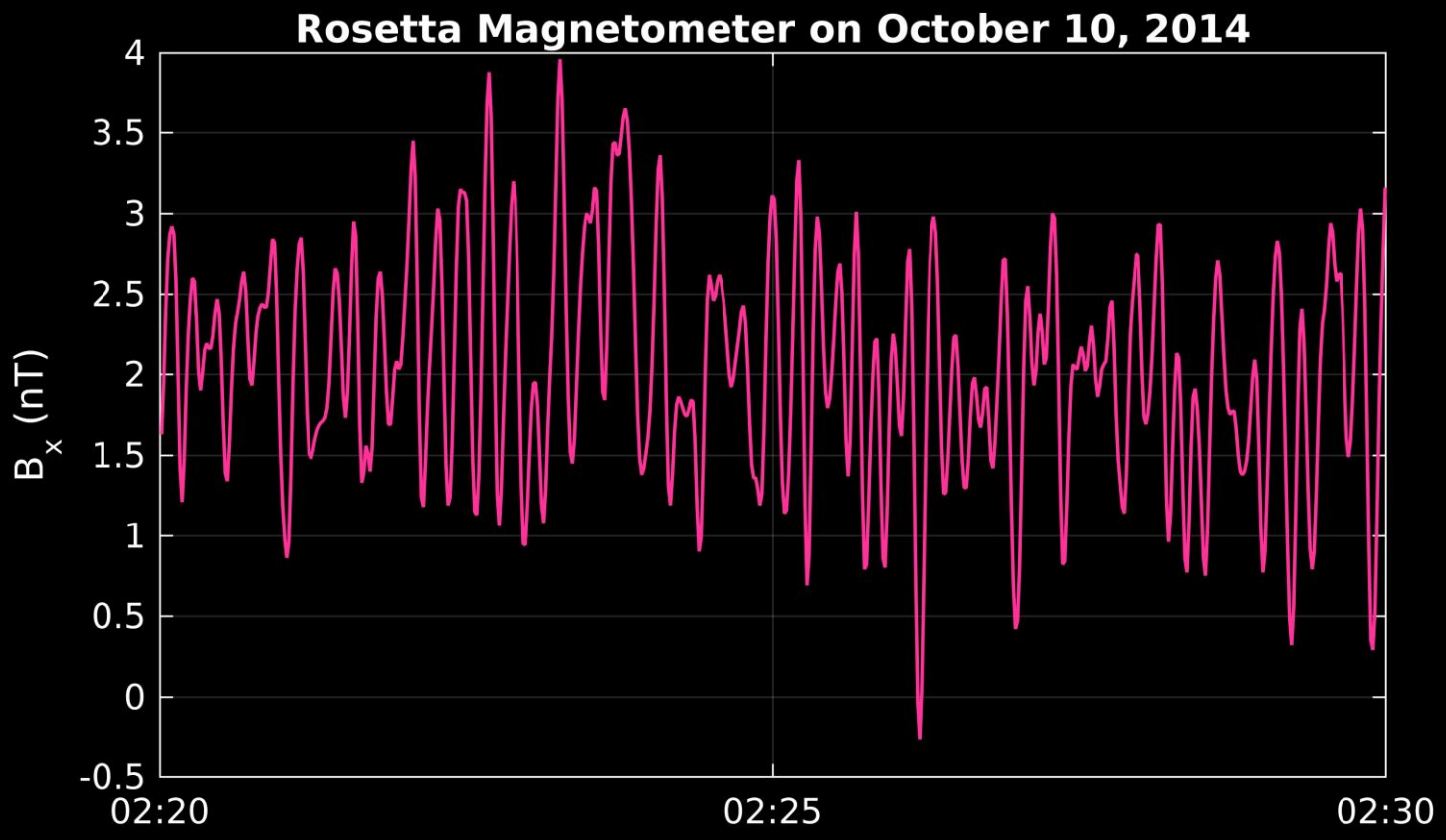


The Baby Comet



Lorentz Force
→
Pick-up of water ions
+
Deflection of protons

The Singing Comet



The Asymmetric Plasma Tail

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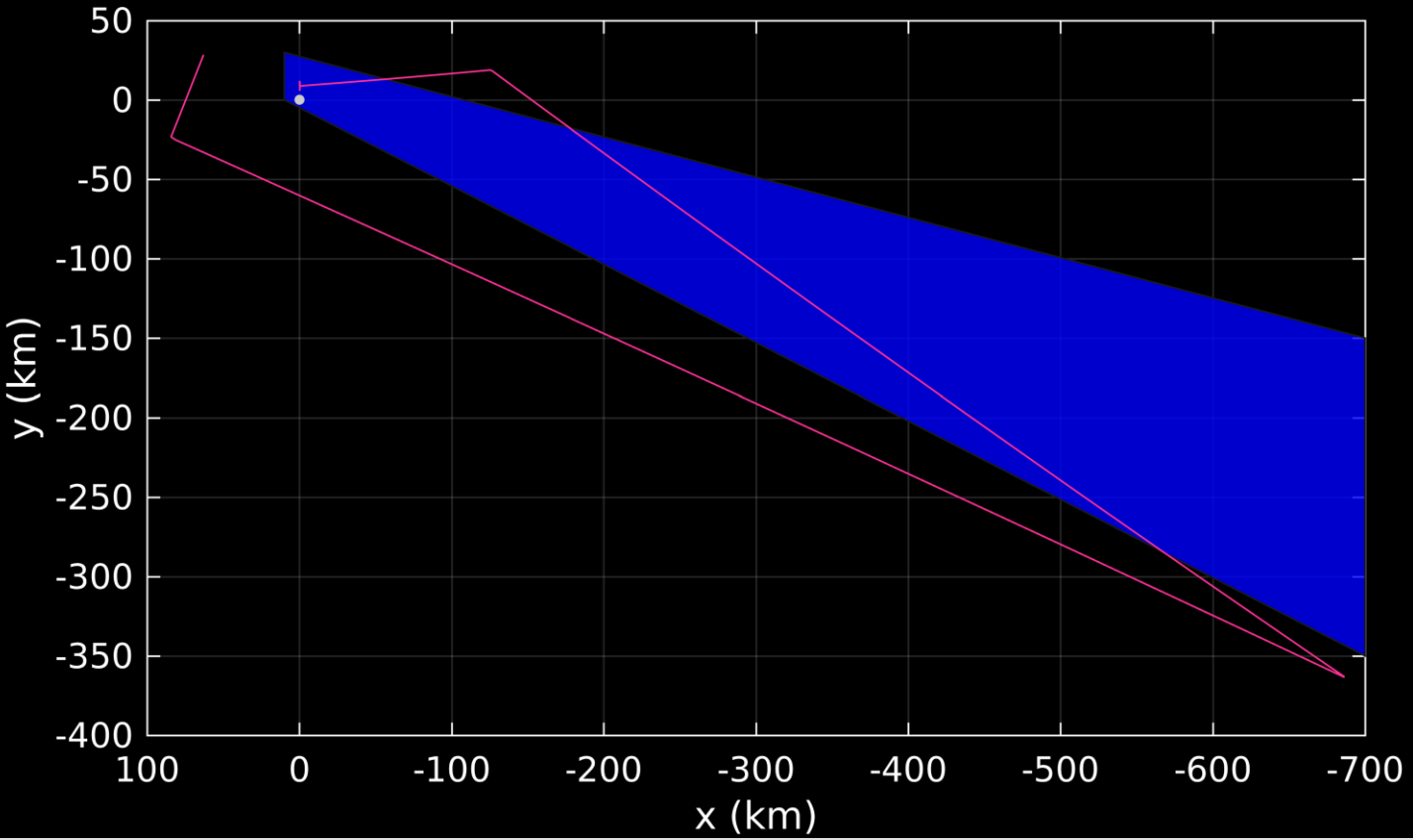
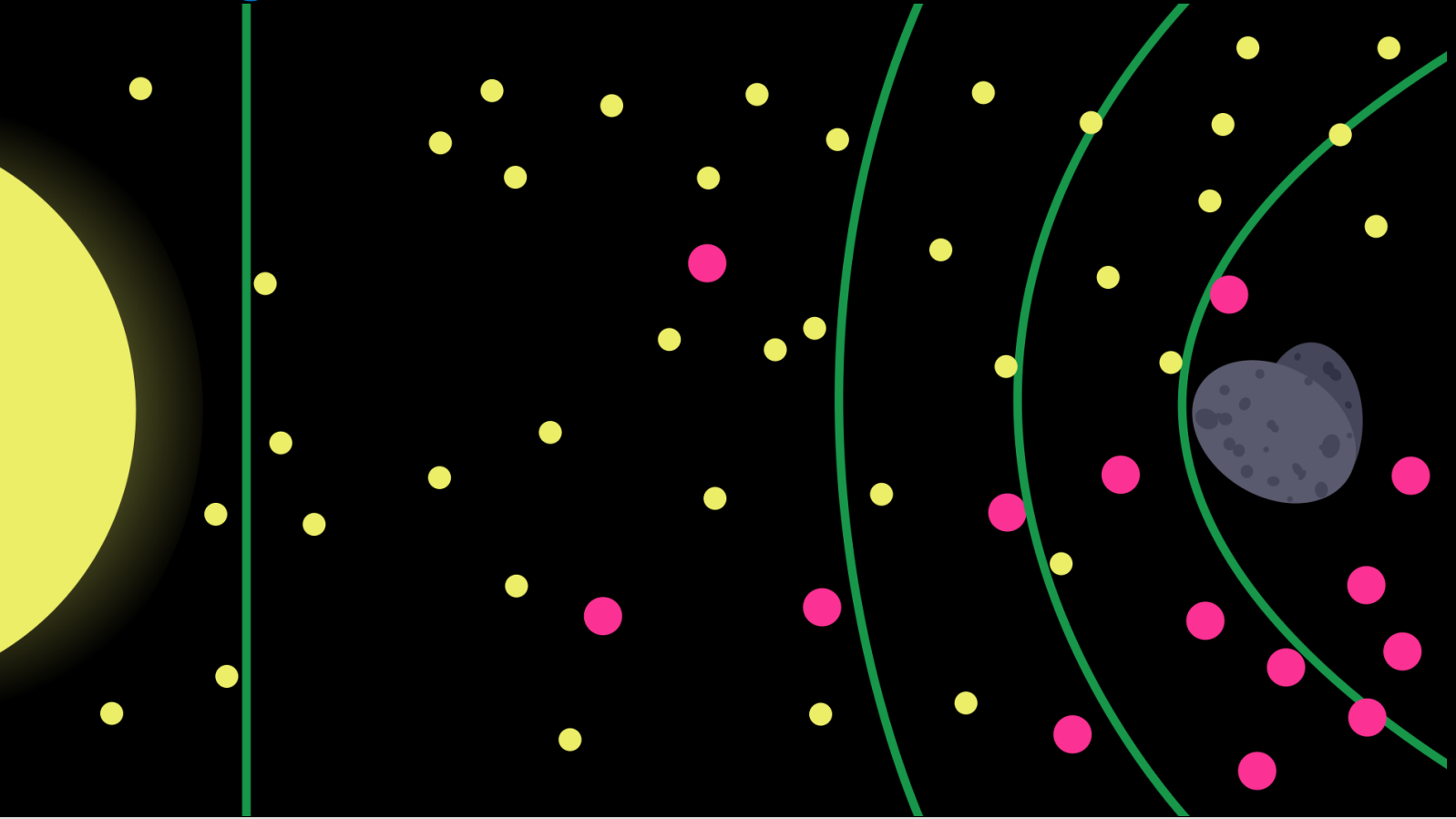


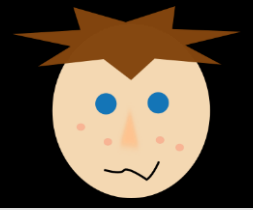
First detection of this structure by RPC

A Teenage Comet – Neither Here nor There

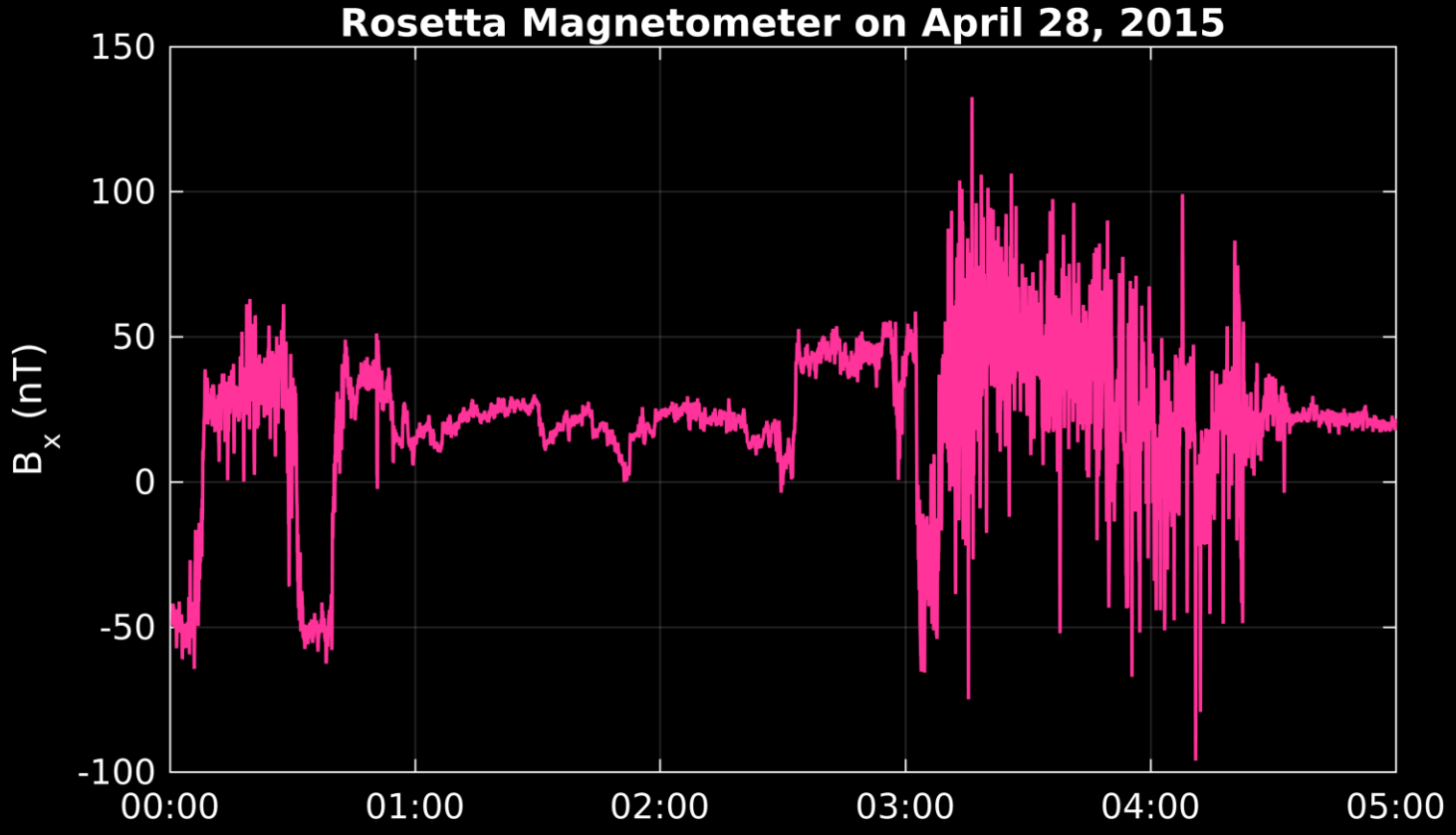


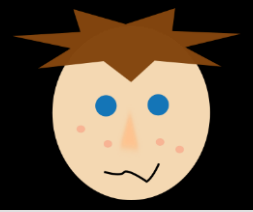
Formation of different regions

Draping of the magnetic field

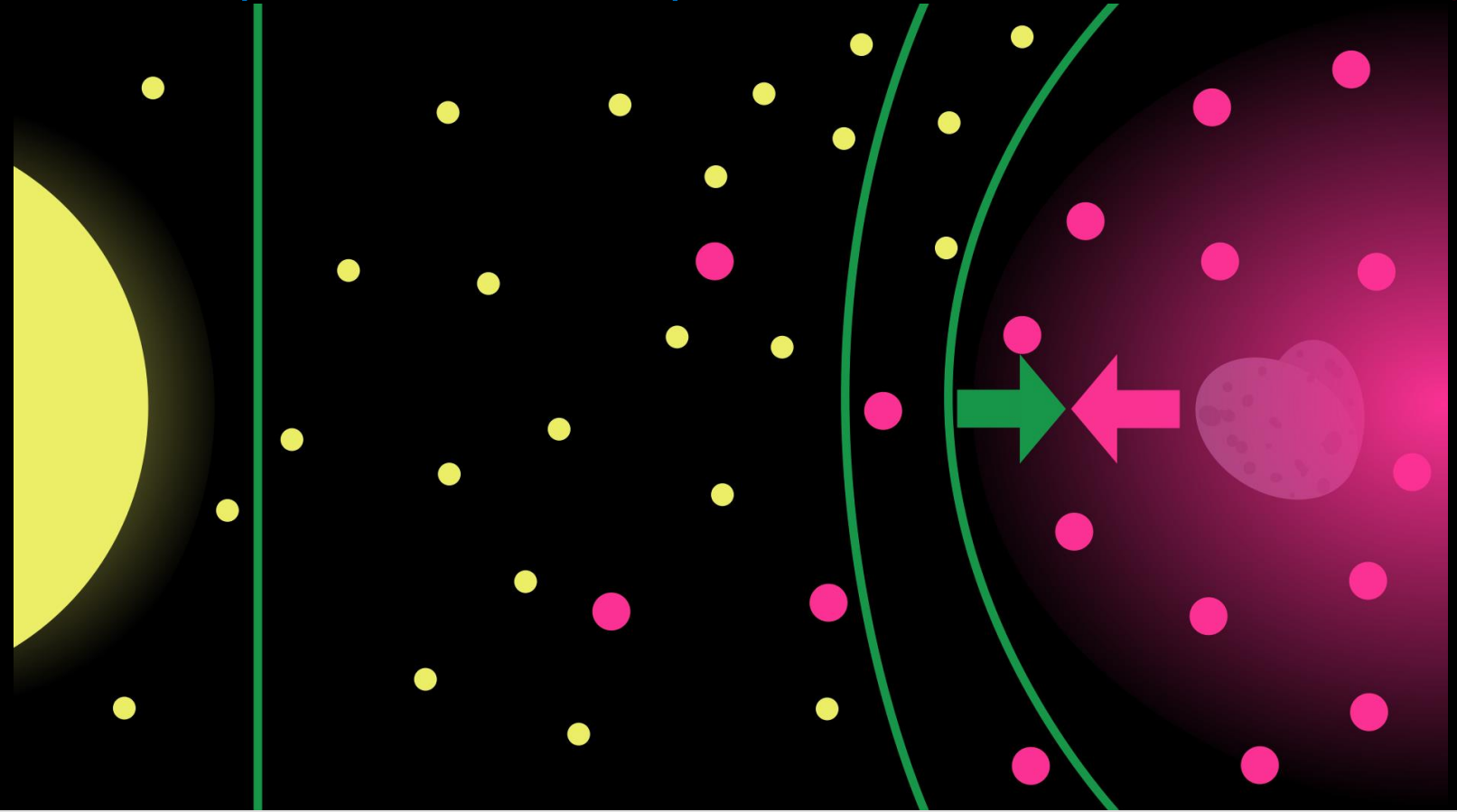


Different Regions are Forming



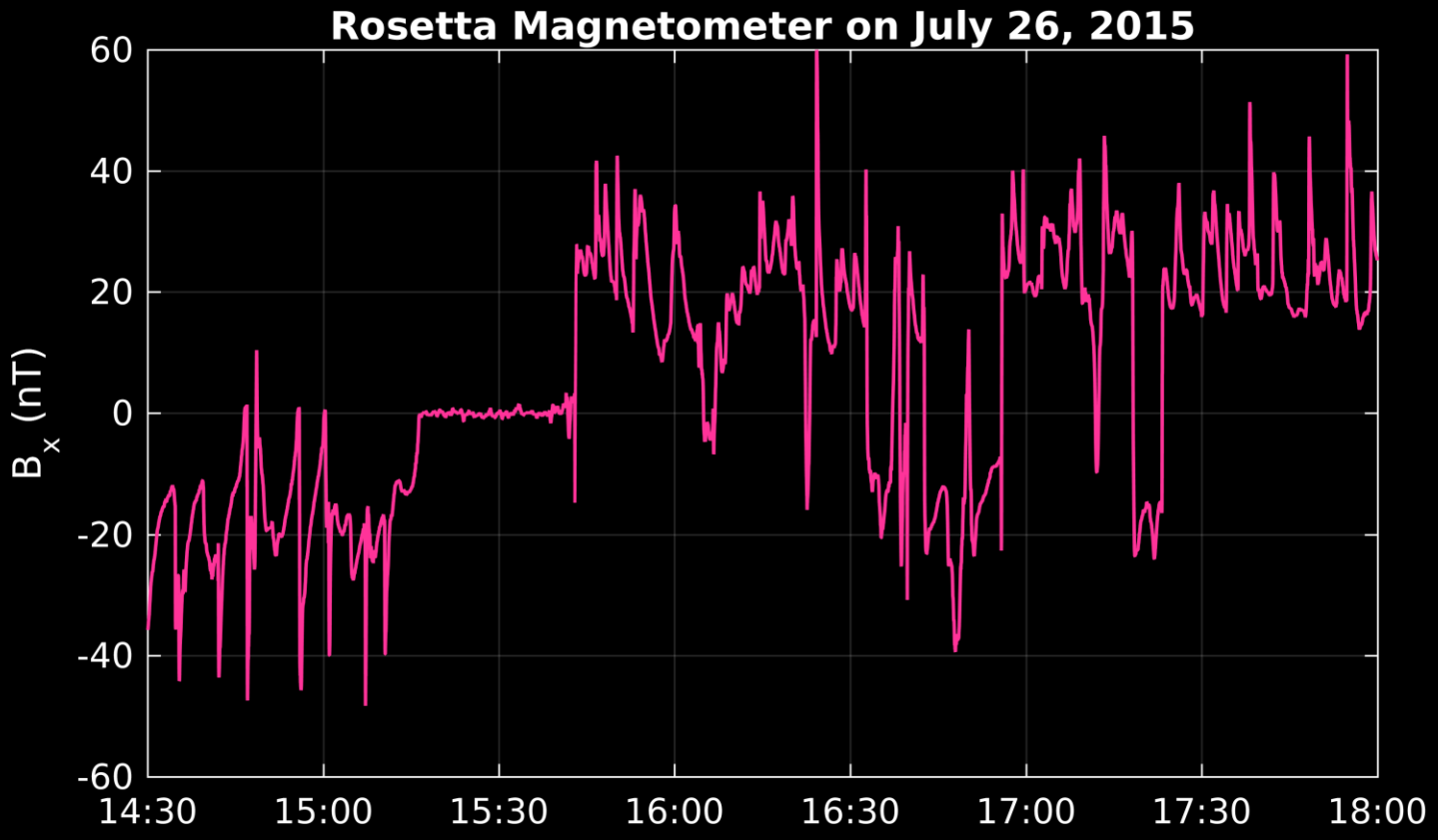


The Fully-Grown Cometary Environment

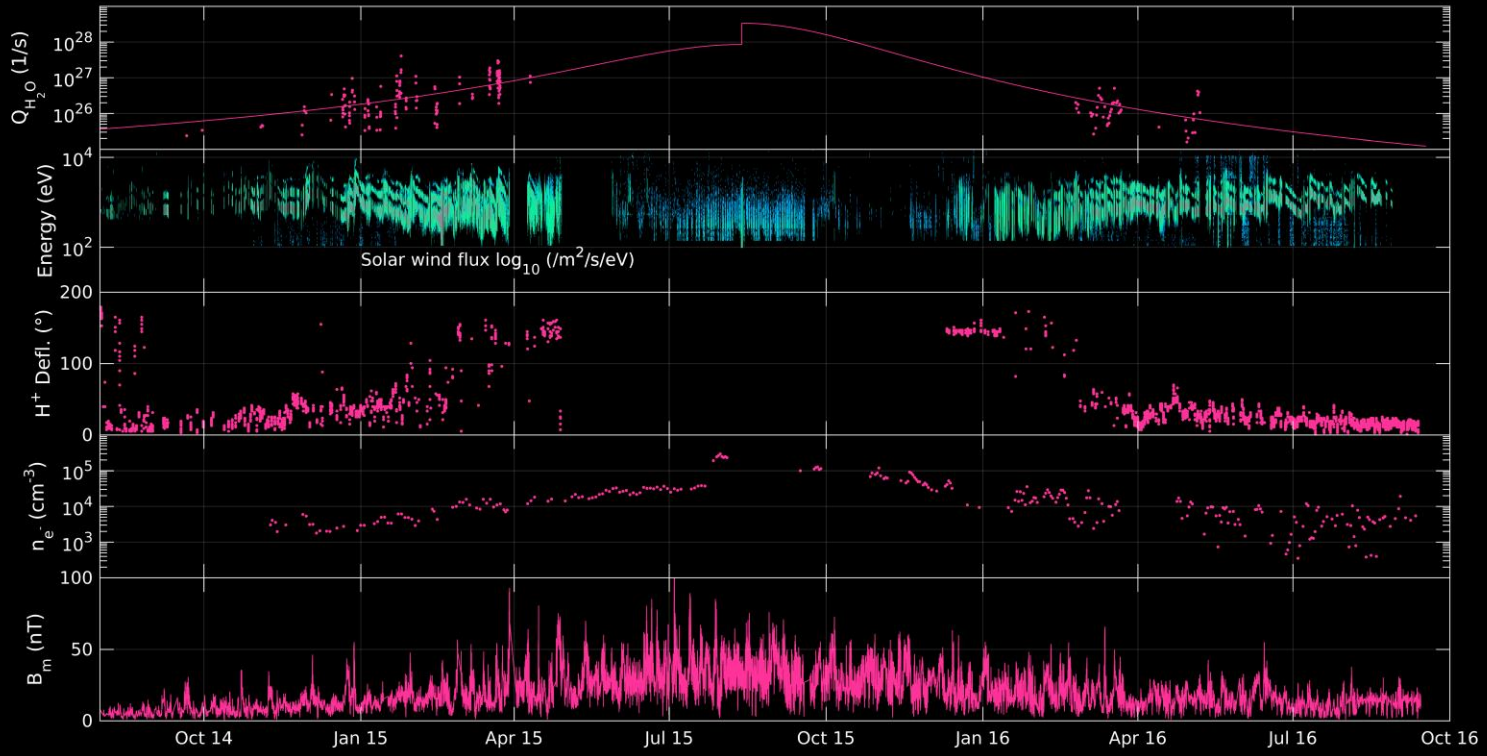


Magnetic field expelled from the inner coma

The Diamagnetic Cavity – A Hole in Time and Space



A Comet's Life



Acknowledgements and References

- Auster et al., Science 2015
- Richter et al., Ann. Geo. 2015
- Richter et al., Ann. Geo. 2016
- Meier et al., Ann. Geo. 2016
- Mandt et al., MNRAS 2016
- Goetz et al., A&A 2016
- Edberg et al., MNRAS 2016
- Simon Wedlund et al., A

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