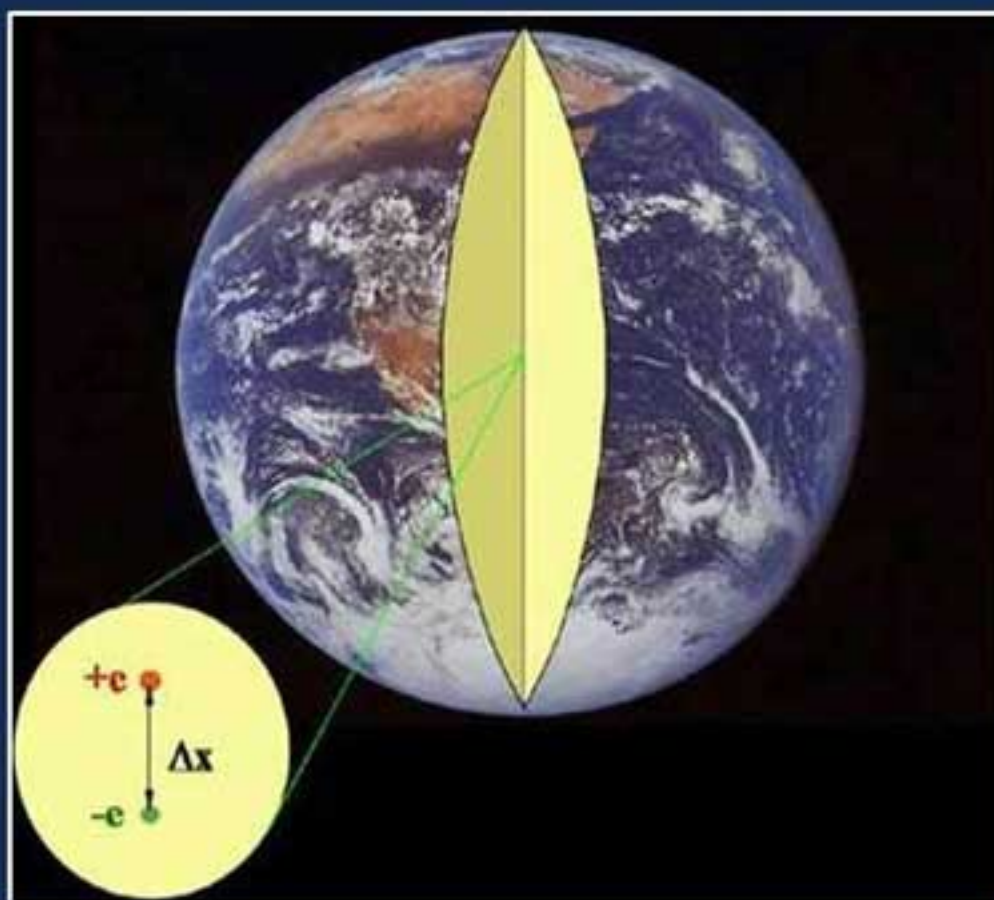


# The neutron Electric Dipole Moment experiment



The ultra-cold neutron storage cell of the room temperature nEDM experiment. This UK experiment holds the most sensitive measurement of the neutron EDM to date.

If the neutron would be the size of the earth, the corresponding precision the nEDM is measured with is  $10\mu\text{m}$ .



A fully cryogenic experiment will be required for a next generation measurement to probe deeper into the nEDM discovery region. RAL/Sussex innovated the associated technologies.

A nEDM violates fundamental symmetries of space and time. It addresses questions of cosmological significance: how the Universe has evolved to be matter, rather than anti-matter, dominated

Highly polished ultra-cold neutron transport guides have been developed at RAL



Replica neutron guide technologies are being developed by RAL Particle Physics and Technology Departments

