

Me and my things

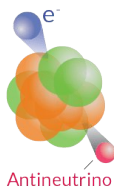
Ander Simón Estévez

IFIC Newcomers Fest 2025

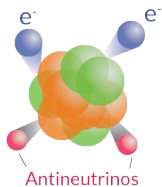
Who am I

- Ramón y Cajal fellow since last March.
- Instrumentalist focused on neutrino physics, mainly (but not only) with noble gas detectors:
 - Neutrinoless double beta decay ($\beta\beta 0\nu$)
 - Coherent elastic neutrino-nucleus scattering (CEvNS)

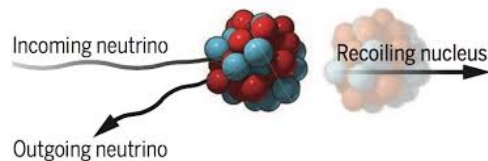
Beta decay



Double beta decay

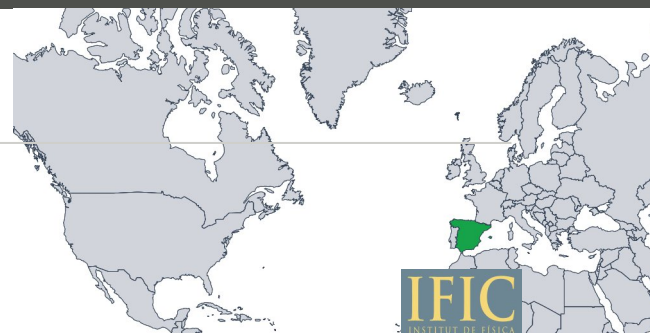


Neutrinoless double beta decay



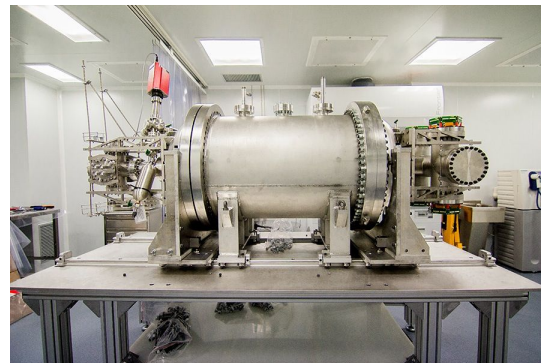
What I've done

- PhD at IFIC in NEXT ($\beta\beta 0\nu$ with xenon TPC)
 - Day-to-day operations in NEXT-DEMO
 - Reconstruction software for the experiment
 - Construction and commissioning of NEXT-White



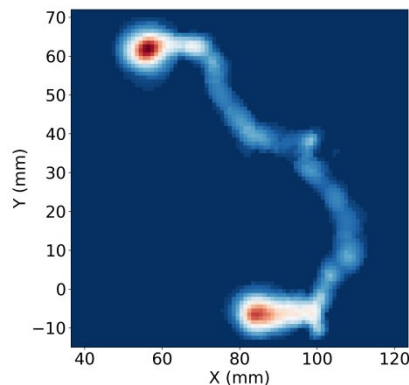
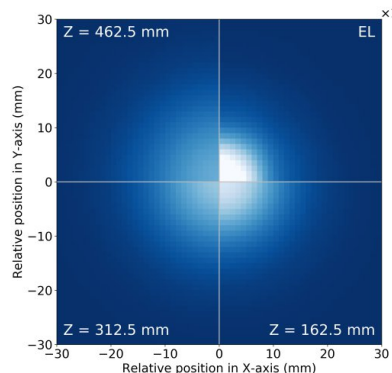
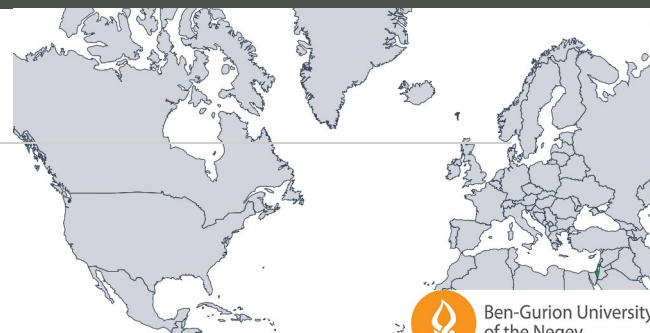
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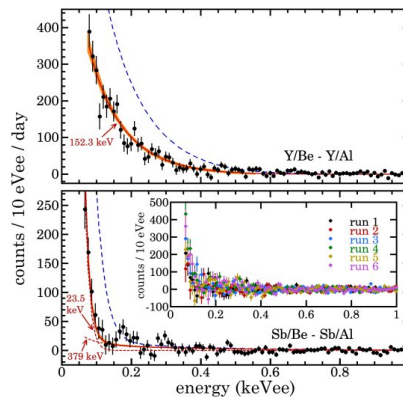
What I've done

- Post-doc at Ben-Gurion University in NEXT
 - Cold gas R&D (AXOLOTEL)
 - Run coordinator of NEXT-White
 - Characterization of signal spread in tracking response in NEXT
 - More reconstruction software



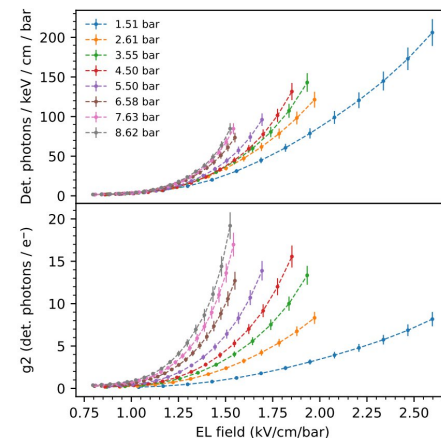
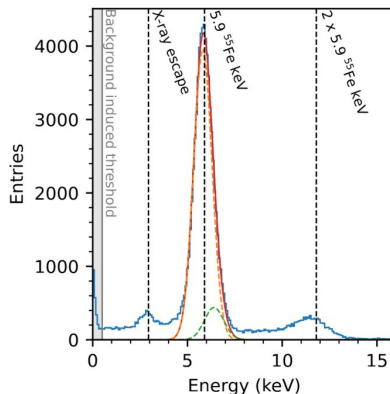
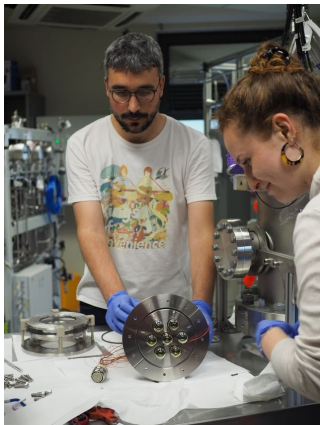
What I've done

- Post-doc at University of Chicago working with cryogenic CsI for CEvNS
 - Sub-keV and few-keV quenching factor measurements
 - Attempts at low-noise, high gain LAAPDs fabrication



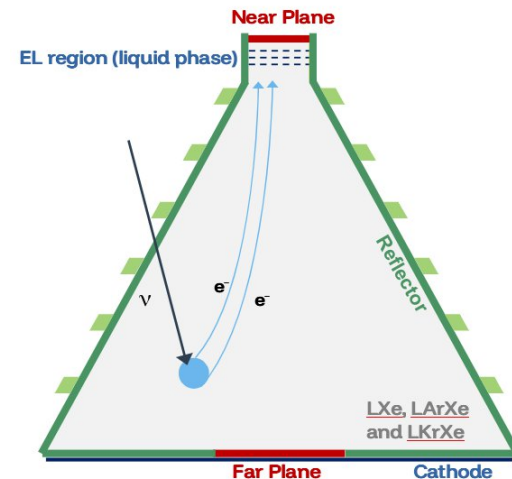
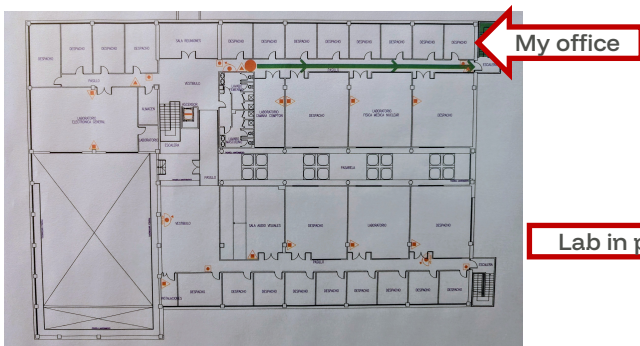
What I've done

- Post-doc at Donostia International Physics Center working in GanESS (noble gas TPC for CEvNS)
 - Commissioning of prototype
 - Electroluminescence and low-energy characterization of argon gas at high pressure



What I'll be doing

- COLINA: conical TPC technology for CEvNS in liquid noble gases.
- Close involvement in NEXT R&D for next generation experiments.
- But, hey, I love new challenges so if you think we can collaborate in some way let's have a coffee!
- You can find me at office 108 in the Nave Experimental, at NEXT lab building the COLINA lab or just email me at ander.simon@ific.uv.es :)



Thanks!