

# Particle Physics Faculty Meeting

- Agenda
  - News/Update
  - SciTech Plans

# ALPHA-g Result

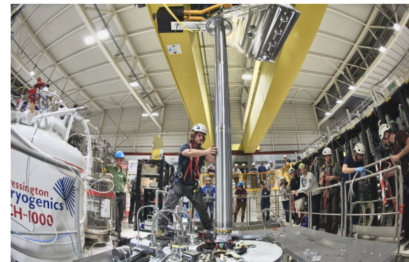
- Congratulations!

A communication resource from the world's particle physics laboratories.

## ALPHA experiment at CERN observes the influence of gravity on antimatter

27 September 2023 - CERN

The result is a milestone in the study of the properties and behaviour of antimatter

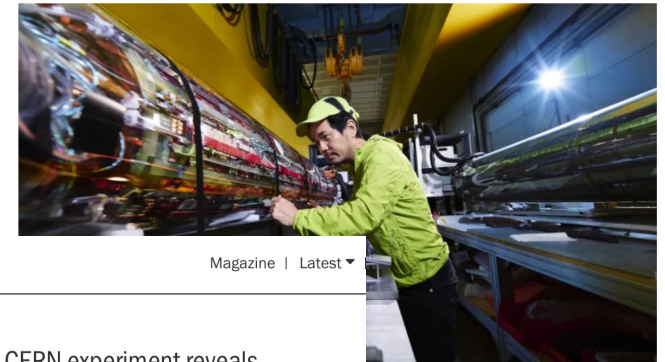


### Scientists drop antimatter to see if it falls



Antimatter is influenced by gravity just like matter, ALPHA-g experiment finds

Emily Chung · CBC News · Posted: Sep 27, 2023 8:01 AM PDT | Last Updated: September 27



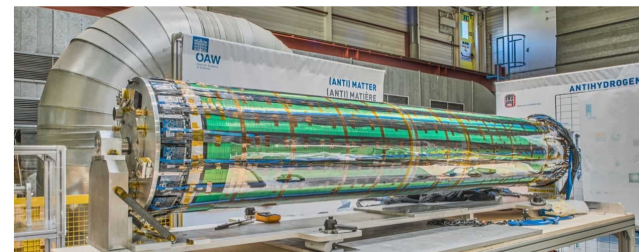
Magazine | Latest ▾

physicsworld |

GRAVITY | RESEARCH UPDATE

### Antimatter does not fall up, CERN experiment reveals

27 Sep 2023 Hamish Johnston



Antimatter dilution detectors that were built at TRIUMF in Vancouver for gravity experiments. (Maximilien Brice, Julien Marius)



ANTIMATTER | NEWS

### Exploring how antimatter falls

30 November 2018



Two new experiments at CERN, ALPHA-g and GBAR, have begun campaigns to check whether antimatter falls under gravity at the same rate as matter.

The gravitational behaviour of antimatter has never been directly probed, though indirect measurements have set limits on the deviation from standard gravity at the level of  $10^{-6}$  (*CERN Courier* January/February 2017 p39). Detecting even a slight difference between the behaviour of antimatter and matter with respect to gravity would mean that Einstein's equivalence principle is not



## Welcome for Andrea and Xiaoyue

- Thanks to everyone who was able to come!



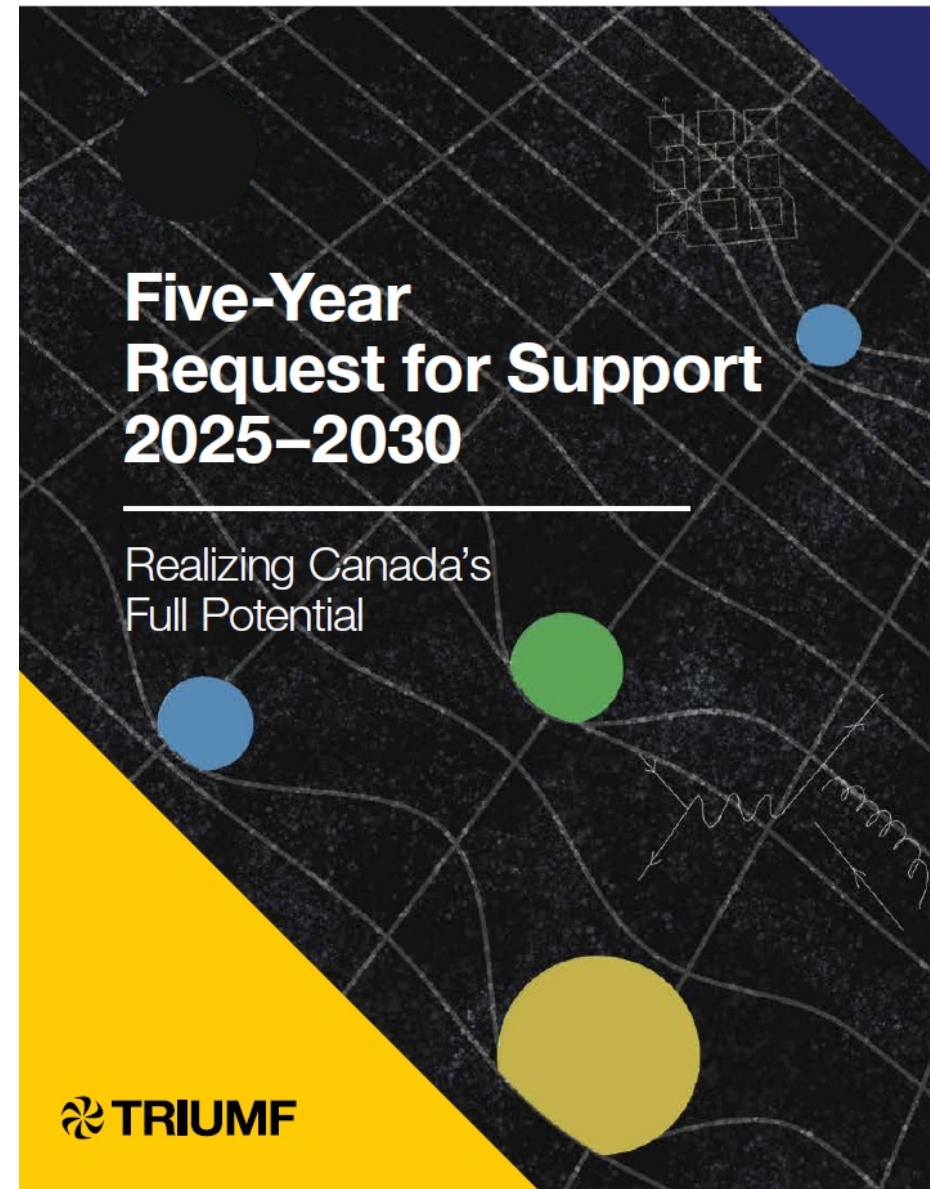
## UCN Hire

- Suggest to embark on lessons learnt to avoid similar cases in the future
- What happened
  - Meeting with Nigel Smith on Friday September 15<sup>th</sup> and Tuesday October 3<sup>rd</sup>
  - with Petr Navratil and Ruediger Picker
  - Push for fast replacement, keeping status quo and international reliability
  - Request from Nigel to check support from within the department!
    - *Would you be interested in joining UCN - part time?*
  - **Got the green light from Nigel to go ahead with hire pending adequate funding for the next 5YP**
  - Job request submitted in Workday
    - Hopefully job ad out by November
    - Deadline for applications January?
    - Interviews in February/March
    - 5YP budget decision at the end of March



## Various

- TRIUMF 5-Year Plan proposal submitted
- Will be publicly released in about a weeks-time
- Lobby Day in Ottawa: 14 participants
- Meeting with MPs in groups of 3
- Reception
  - 2 VR headsets to run 3 different videos (few min each)
    - Introduction/tour of TRIUMF
    - CERN
  - AR content with ATLAS detector
    - Demo on a tablets
  - Two hands-on demos:
    - Target assembly for production of medical isotopes
    - Detectors: SiPM, photomultiplier tube, BeEST Josephson junction & ATLAS ITK petal
  - "Medical cyclotrons" movie in the background



## Various

- P3: Quarterly check-ins for BAE's declared optional in PSD
  - Please make sure for your technical staff this gets completed
  - Met with Valeriya to discuss BAE form in Workday (+Ian McKenzie)
  
- Reviving mentorship for new BAEs with Petr
  
- Next week Tuesday-Thursday, CNSC Program Officer will visit TRIUMF
  - Get to know TRIUMF, meet people
  - Audit on "management systems" spring of next year
  
- New graduate student policy in effect
  - Petr sent it to NSERC



**AOB**



## Next Meeting

- Nov 9<sup>th</sup>