

Welcome to CREF

for the Nuclear Science Symposium

Rome 16 April 2026

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THE RESEARCH at CREF

Complexity

Applied Research

Basic Research

Museum

**The legacy
of Enrico
Fermi**

Intertwining past and future (the new has its history)

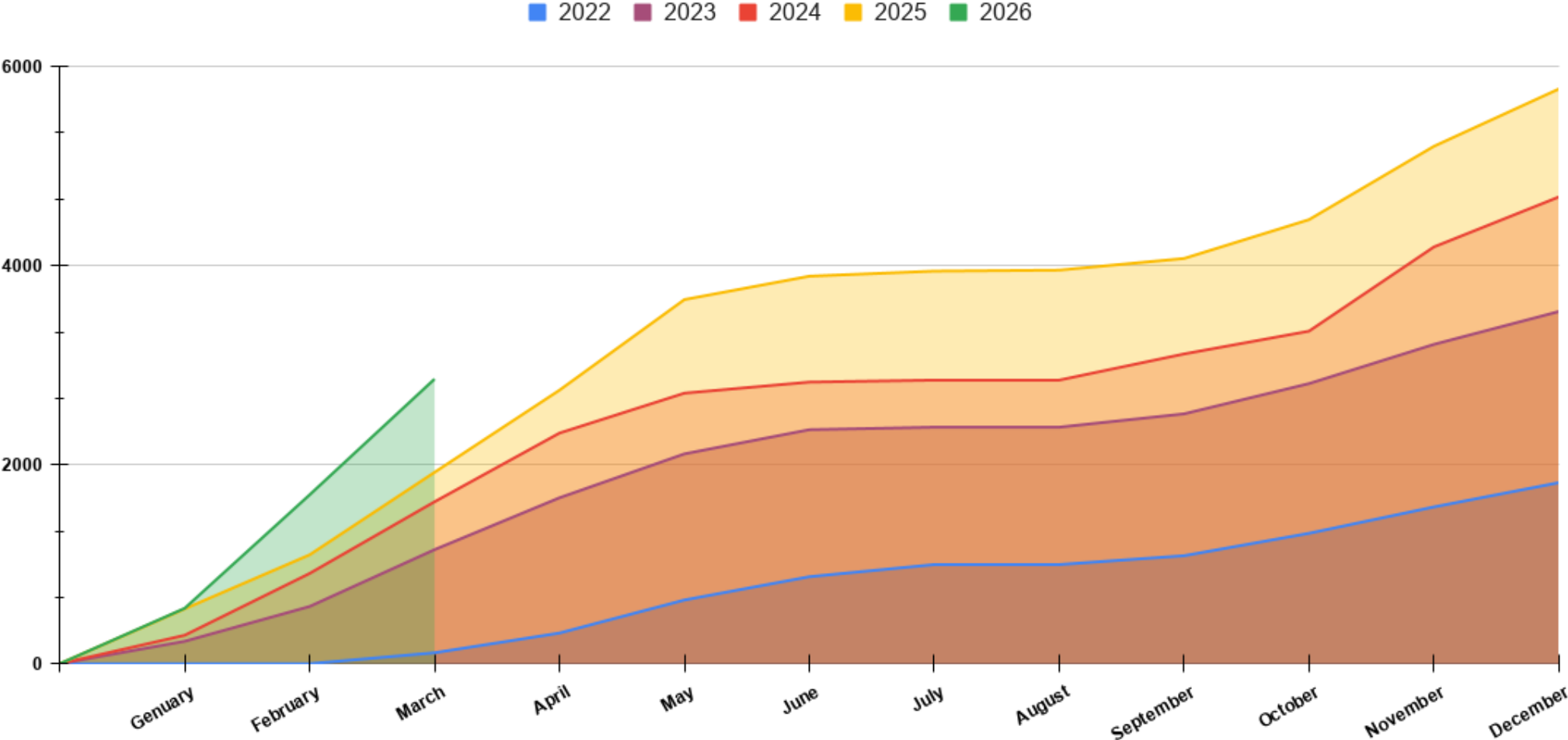
The museum provides a narrative that, starting from historical memory, projects toward the future.



Special focus on:
Fermi-Dirac Statistics
Beta Decay Theory
Slow Neutrons and Induced Radioactivity
(CP1 – nuclear reactor + Manhattan Project)

A GROWING REALITY: THE MUSEUM

Fermi Museum visitors attendance



24 Researchers

6 Laboratories

21 Postdoctoral positions and Fellowships

12 Ph.D Students

7 Administrative

Employees

3 Technicians

104 associated from other institutions

International

Scientific committee

(chair Maria Borge)



- Complexity in natural and social science, and in economics
- The impact of AI on technological innovation
- Climate change



- Neuroscience and quantitative neuro imaging (MRI at Santa Lucia)
- Radio and hadrontherapy
- Cultural heritage



- Photonic Technologies and artificial intelligence
- Cosmic ray detection : Extreme energy events
- Tests of quantum mechanic principles



- Research on History of physics
- Outreach and diffusion of culture
- International Networking with other museums



- **The restoration** of the currently unusable part of the building (with an area approximately the same as the one in use today) is about to start.
We finally have all the permits to carry out the restoration work.
- To have available to whole building **will offer excellent opportunities** to expand the museum, to strengthen research and open new directions in other multidisciplinary fields (e.g. contribution to energy research).

IUPAP WG9 webpage: <https://wg9.triumf.ca/>

Background

The IUPAP working group WG9 is an ad-hoc Committee on International Cooperation in Nuclear Physics (CICNP) that was proposed by the Commission C12 in 2003...

The formation of this committee had been a topic of discussion within C12 since 1995 and perhaps even earlier.

It was created to facilitate international cooperation within the nuclear physics community following the recommendations of the various committees that preceded it. The main objectives of WG9 are:

- To promote international cooperation in the broadest sense with the construction and exploitation of the large nuclear physics facilities - those which are intended for use by a worldwide nuclear physics community.
- To organize meetings on a regular basis, which are open to all wishing to attend, for the exchange of information on future plans for nuclear physics facilities, including also multi-disciplinary facilities or facilities intended to more regional use.
- ***To stimulate the organization of workshops and/or symposia to discuss the ongoing and future programs and development plans of nuclear physics and the need for facilities for the various subfields: high energy heavy-ion beam facilities, radioactive-ion beam facilities, multipurpose hadron beam facilities, high energy electron beam facilities and research in various applications of high societal impacts as e.g. those in the medical area.***

REPORT 41 https://wg9.triumf.ca/pdfs/Report41/IUPAP_WG9_Report_41-FINAL2023-comp.pdf

History of WG9 Nuclear Science Symposia

2004: First WG9 Meeting

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2010: TRIUMF, Vancouver

2013: INFN Frascati

2015: SURA Headquarters, Washington DC

2017: RIKEN Tokyo

2019: University of Notre Dame, London Campus




2022: SURA Headquarters, Washington DC

2026: Enrico Fermi Center, Rome

<https://wg9.triumf.ca/minutes.html>

IUPAP Report 41

A Worldwide Perspective of Research And Research Facilities
in Nuclear Physics by the IUPAP Working Group 9

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- Preface
- ▼ **Part I — Part 1 - Overview**
 - 1 Executive Summary
 - 2 Nuclear Structure, Reactions, and Astrophysics
 - 3 Hadronic Nuclear Physics
 - 4 QCD and Quark Matter
 - 5 Fundamental Symmetries
 - 6 Applied Nuclear Sciences
 - 7 Future Nuclear
 - 8 Nuclear Power
- ▼ **Part II — Part 2 - Individual Laboratories**

Your slides will be made public on the webpage

We are considering to write an extended abstract plus one figure on your talks as Addendum to our Report 41.

Thank you for your presence and your work!