

WP7 – Knowledge Transfer

Muography Workshop Series

INTENSE MidTerm Review Meeting

-

November 28, 2022

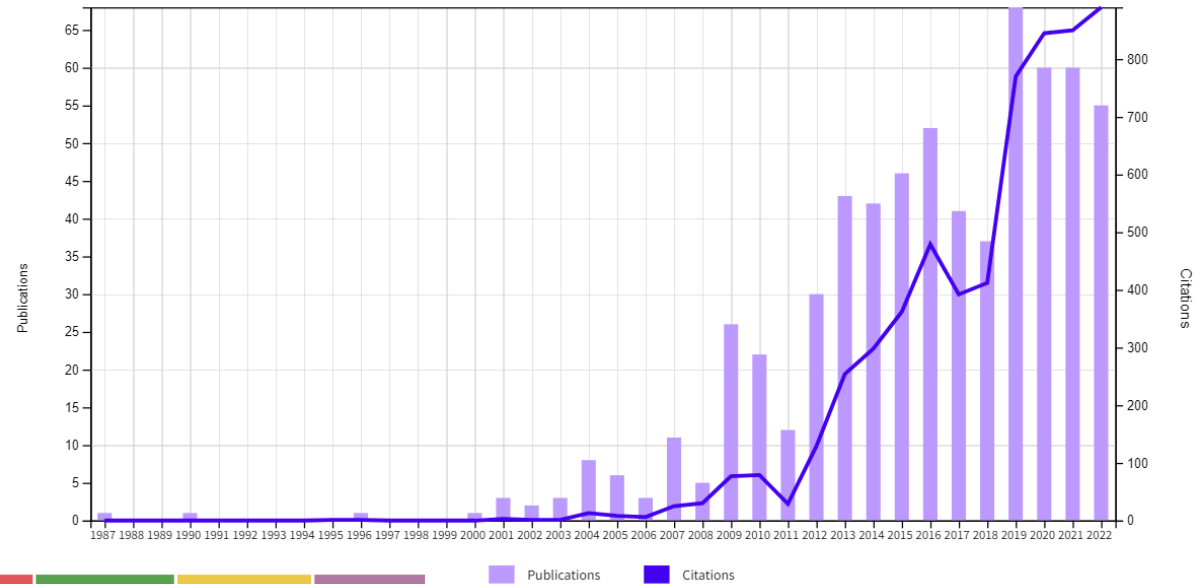


**GHENT
UNIVERSITY**

Michael Tytgat

Cosmic-Ray Muography

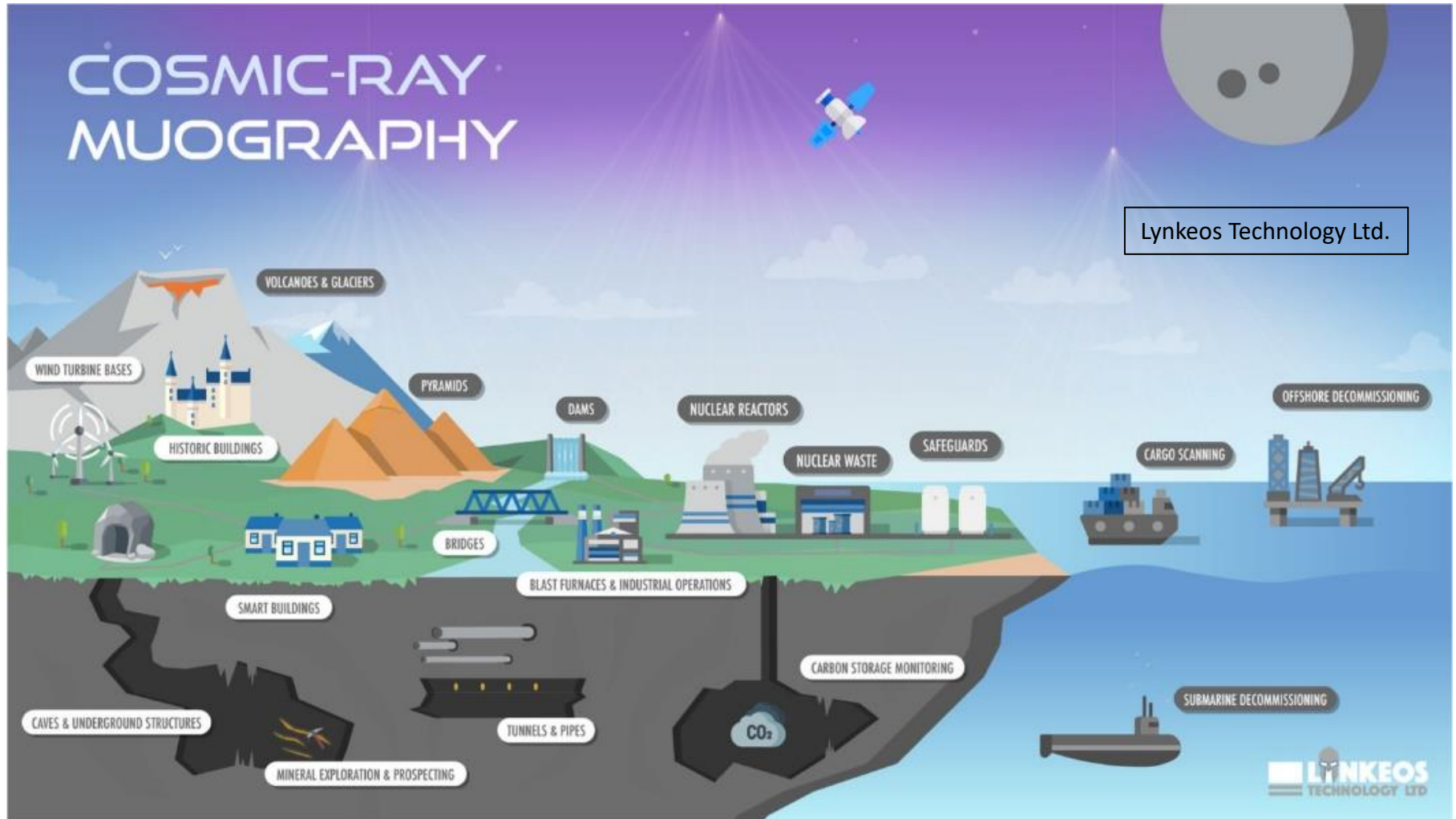
*“muography”,
“muon radiography”
or “muon tomography”*
in Web of Science



Increasing number of publications
and research activity around the
world

Muography relies on and serves
many different research fields and
is often multidisciplinary

Cosmic-Ray Muography



Increasing amount of applications and corresponding number of spinoffs and companies

International Muography Workshop

As part of INTENSE, a new international workshop series was launched in 2021:

- Directly related to INTENSE WP5 on Muography
- Create a global muography community, i.e. to bring the many muography research activities around the world together
- Create common forum for discussion about muography
- Foster collaboration, education and awareness of muography
- Technology transfer and interaction with private companies

Note also

- Muographers events in Japan
- Muography sessions at e.g. annual European Geophysical Union assembly ...

Muography2021

Ghent University
24-26 November 2021

Meeting chaired and steered by
INTENSE members

Covid period: limited in-person
participation and many online
contributions

<https://indico.cern.ch/event/1033631/>



GHENT
24-26 NOV.

Muographers 2021

International Workshop on Cosmic-Ray Muography (Muography2021)

24-26 Nov 2021
Ghent
Europe/Brussels timezone

Enter your search term

Covid-19 Related Information

Overview

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- Participant List
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- Accommodation
- Things to do while in Ghent

General information

✉ muography2021-info@c...

In muographic imaging naturally abundant cosmic-ray muons are used to probe the internal structure of a wide range of objects, up to kilometer scale in size, where more conventional techniques cannot be applied. An increasing amount of applications of muography are appearing both in fundamental research, such as geology, geophysics, archaeology, and in industrial and societal applications.

This International workshop aims to bring an overview of the current status and trends in muography. The event will review muographic instrumentation, simulations tools, data analysis and image reconstruction techniques, various applications and case studies, and ideas for future developments.

The workshop will feature plenary sessions and a poster session. We invite abstracts for both overview talks and more detailed in-depth contributions on specific topics.

Given the current uncertainty in the Covid-19 situation, we foresee a hybrid meeting where people that cannot attend the workshop in person can join remotely. All presentations will be recorded and made available to the registered participants for offline viewing. **Please do check the Covid-19 Related Information section.**

The registrations have been closed on Nov. 22, 2021.

Starts 24 Nov 2021, 08:00
Ends 26 Nov 2021, 14:10
Europe/Brussels

Ghent
Het Pand, Zaal August Vermeylen
Het Pand
Onderbergen 1, B-9000 Gent
Belgium
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Michael Tytgat (UGent, chair)
Andrea Giammanco (UCLouvain, co-chair)
Hiroyuki Tanaka
Simone Donati
Akitaka Ariga
Giovanni Macedonio
Lorenzo Bonechi
Giulio Saracino

There are no materials yet.

Muography2021 Pictures



Muography2021 Summary

- ✓ 142 participants (physically present and online), from essentially all over the world
- ✓ 37 oral contributions and 18 posters
- ✓ 2.5 days of plenary sessions, including 45min of online poster session
- ✓ Topics: Collaboration reports, instrumentation, simulation tools and studies, data analysis and image reconstruction, applications, new ideas, science communication and outreach
- ✓ 8 private companies were represented at the workshop
- ✓ 35 peer-reviewed papers published in *Journal for Advanced Instrumentation in Science* (JAIS), DOI: <https://doi.org/10.31526/jais.2022>

Post-Muography2021 Actions

- An **International Advisory Committee** was put in place to ensure and steer the periodic organization of the Muography workshop (muography-iac@cern.ch); current members (including many INTENSE scientists):
 - Germano Bonomi (Italy),
 - Cristina Carloganu (France),
 - Andrea Giammanco (Belgium),
 - Jacques Marteau (France),
 - Kunihiro Morishima (Japan),
 - Christopher Morris (USA),
 - Giulio Saracino (Italy),
 - Hiroyuki Tanaka (Japan),
 - Michael Tytgat (Belgium),
 - Dezso Varga (Hungary),
 - Jaap Velthuis (UK)
- A **muography global community mailing list** to distribute news, event announcements, job adds ... has been put in place:
muography-community@cern.ch
- International call was placed for interested parties to organize next edition of workshop

Outlook



- **2nd edition of the Muography workshop** will be organized in Naples (INTENSE institute), 19-22 June, 2023: <https://indico.cern.ch/event/1203839/>
- Workshop will be preceded by the **1st International School on Muography**, 15-17 June, 2023