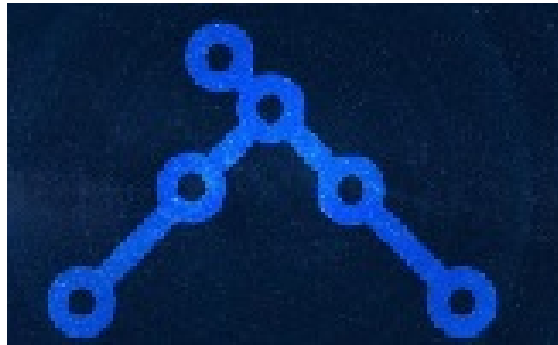


# ETpathfinder workshop

## January 2024

Wednesday, 31 January 2024 - Friday, 2 February 2024

Maastricht University DUB30



## Book of Abstracts



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## **ETpathfinder; Top level overview**

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## **First Bench Tower; planning installation and commissioning**

**Corresponding Authors:** mbaars@nikhef.nl, kennylam@nikhef.nl, guidov@nikhef.nl

Kenny Lam: Towards the commissioning of the first bench tower

Guido Visser: ETpf EMC Benchmarking

Mathijs Baars: A status update on the ETpf mechanical works

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## **Introduction Workshops**

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## **Conclusion; next steps**

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## **Collaboration housekeeping discussion**

**OPLEV discussions / 23**

## **Test**

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## **Social Dinner**

Please share your menu choices in advance; <https://forms.gle/sQGfEE9aCLhr93S48>

**Cryogenics Plenary / 26**

### **project organization 10K cooling project**

**Corresponding Author:** [romaine.kunst@demcon.com](mailto:romaine.kunst@demcon.com)

**Cryogenics Plenary / 27**

### **Concepts for the 10K cooling**

**Corresponding Author:** [m.a.j.vanlimbeek@utwente.nl](mailto:m.a.j.vanlimbeek@utwente.nl)

**Cryogenics Plenary / 28**

### **10K Sorption cooler**

**Corresponding Author:** [a.xhahi@nikhef.nl](mailto:a.xhahi@nikhef.nl)

**Cryogenics Plenary / 29**

### **planning and realization 10K cryogenics**

**Corresponding Authors:** [m.a.j.vanlimbeek@utwente.nl](mailto:m.a.j.vanlimbeek@utwente.nl), [romaine.kunst@demcon.com](mailto:romaine.kunst@demcon.com)

**Cryogenics Plenary / 30**

### **Q&A 10K cryogenics**

questions and answers can be discussed after each contribution as well, this slot is to reserve time for that.

**Cryogenics Plenary / 31**

### **the potential of liquid Nitrogen as fall-back solution for 3rd-generation GW detectors**

**Author:** Stefan Hild<sup>None</sup>

**Corresponding Author:** s.hild@maastrichtuniversity.nl

**Cryogenics Plenary / 32**

## **research activities with LN2 in Twente and Maastricht**

**Authors:** Cris Vermeer<sup>None</sup>; Henk Jan Bulten<sup>None</sup>

**Corresponding Authors:** c.h.vermeer@utwente.nl, henkjan@nikhef.nl

**Cryogenics Plenary / 33**

## **overview design of thermal shields and cryogenic lines**

**Corresponding Author:** rgarcia@ifae.es

**WP4 Vacuum and Cryogenics / 34**

## **PLC control**

**Corresponding Author:** thomas.thuemmler@kit.edu

**WP4 Vacuum and Cryogenics / 35**

## **(workshop) time for discussion PLC control, Q&A**

**WP4 Vacuum and Cryogenics / 36**

## **Status of the vibrationally-damped cold finger (JPE)**

**Corresponding Author:** lkranzho@nikhef.nl

**WP4 Vacuum and Cryogenics / 37**

## **(workshop) design and discussion LN2 vessel/Demaco interface**

**Corresponding Author:** rgarcia@ifae.es

**WP4 Vacuum and Cryogenics / 38****design and discussion thermal shields and cryogenic lines****Co-author:** Rafael Garcia <sup>1</sup><sup>1</sup> *IFAE Barcelona***Corresponding Authors:** m.baars@nikhef.nl, rgarcia@ifae.es, m.a.j.vanlimbeek@utwente.nl, kennylam@nikhef.nl, henkjan@nikhef.nl, c.h.vermeer@utwente.nl

I think it would be good to discuss the design of the shields and the cryogenic leads, to discuss if we can freeze the design and start production, and to determine whether things might be missing

**WP4 Vacuum and Cryogenics / 39****plans for measurements/upgrades LN2 system in Twente****Corresponding Authors:** henkjan@nikhef.nl, c.h.vermeer@utwente.nl

we would like to discuss all other aspects that require planning,

- support structure
- phase separator
- shield coating
- infrastructure availability/constraints (Cris)

and the measurements that we want to perform with the LN2 system:

- vibrations: (optical lever/accelerometer)
- cooling curve, characterizing operation
- ice buildup (piezo measurements)

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**E-Test Seismic Isolation****Corresponding Author:** anthony.amorosi@doct.uliege.be**Updates on WPs / 41****WP3 status and preview of 2024****Corresponding Author:** paul.kuijer@nikhef.nl

Overview of achievements in 2023 and summary of things to do in 2024

**Updates on WPs / 42****WP3 Q&A**



**Author:** Paul Kuijer<sup>1</sup>

<sup>1</sup> *Nikhef*

**Corresponding Author:** paul.kuijer@nikhef.nl

Questions and suggestion are welcom

**Updates on WPs / 43**

## **update on WP4**

**Corresponding Author:** henkjan@nikhef.nl

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## **Collaboration housekeeping as practiced in KATRIN**

**Author:** Joachim Wolf<sup>None</sup>

**Corresponding Author:** joachim.wolf@kit.edu

This talk gives a quick overview how collaboration housekeeping works in KATRIN. This covers the individual boards, their responsibilities, and how they interact. This also covers the publication policy with paper categories as well as internal paper and analyses reviews.

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## **Collaboration housekeeping as practiced in KATRIN**

**Author:** Joachim Wolf<sup>None</sup>

**Corresponding Author:** joachim.wolf@kit.edu

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**Updates on WPs / 46**

## **Assembly and test of GAS filters for the Bench towers**