

## **Session Program**

**Apr 13 - 16, 2026**



# **Workshop on "Determination of the Absolute Electron (Anti-)Neutrino Mass"**

## **Posters**

KIT Campus South  
NTI-Hörsaal (NTI Lecture Hall) Engesserstraße 5, 76131 Karlsruhe

# Mon, April 13

5:00 PM

## Posters: Poster session I

### Session

**Location:** KIT Campus South, Gaede Foyer, 2nd floor (in front of Gaede-Lecture theater) Physikflachbau Building  
30.22 Engesserstraße 7 76131 Karlsruhe

5:00 - 5:01 PM

### Ab initio calculations of the electron capture spectrum in Ho

#### Speaker

Vera Butz

5:01 - 5:03 PM

### Cold sources of atomic hydrogen and its isotopes

#### Speaker

Sergey Vasiliev

5:03 - 5:05 PM

### A graphene-based atomic hydrogen sensor

#### Speaker

David Frese

5:05 - 5:07 PM

### Characterization of a Mass Spectrometer for Atomic Tritium Source Studies

#### Speaker

Daniel de Vincenz

5:07 - 5:09 PM

### Electron backscattering at the Focal Plane Detector (FPD) of KATRIN

#### Speaker

Philipp Lingnau

5:09 - 5:11 PM

### The Tritium Laboratory Karlsruhe for Neutrino Mass Research

#### Speakers

Beate Bornschein, Michael Sturm

5:11 - 5:13 PM

### Sterile-neutrino search based on 259 days of KATRIN data

#### Speakers

Dr Christoph Köhler, Xaver Stribl

5:13 - 5:15 PM

### Magnetic Field Simulations for the Next-Generation MMC-Based KATRIN Experiment

#### Speaker

Carlotta Buchner

5:15 - 5:17 PM

### Measurement of the Source Electric Potential in the KATRIN Experiment

#### Speakers

Jaroslav Storek, Karo Erhardt

5:17 - 5:19 PM

### High-precision $Q\beta$ -value measurements for neutrino physics

#### Speaker

Christoph Schweiger

5:19 - 5:21 PM

**Extended range measurement of the KATRIN energy loss function up to 200 eV****Speaker**

Justus Beisenkötter

5:21 - 5:23 PM

**Test setup for a potential electron tagger at KATRIN****Speaker**

Patrick Alexander Unkhoff

5:23 - 5:25 PM

**Studies on Ho implantation efficiency and upgrades for the HOLMES+ experiment****Speaker**

Federico Bianco

5:25 - 5:27 PM

**KAMELEON: a montecarlo and analytical approach to simulating electrons in the KATRIN beamline****Speakers**

Giulio Gagliardi, Tom Geigle

5:27 - 5:29 PM

**Sensitivities beyond KATRIN: first steps towards a next-generation neutrino mass experiment****Speakers**

Chloe Goupy, Neven Kovac, Svenja Heyns

5:29 - 5:31 PM

**Neutrino mass absolute scale sensitivity studies for Holmium-based experiments****Speaker**

Sara Gamba

5:31 - 5:33 PM

**Search for Local Relic Neutrino Overdensities with the KATRIN experiment****Speaker**

Alessandro Schwemmer

5:33 - 5:35 PM

**Measurement of the Electron Backscattering on the KATRIN Rear Wall****Speakers**

Justus Beisenkötter, Neven Kovac, Dr Rudolf Sack

6:30 PM

## Tue, April 14

5:05 PM

### Posters: Poster session II

#### Session

**Location:** KIT Campus South, Gaede Foyer, 2nd floor (in front of Gaede-Lecture theater) Physikflachbau Building  
30.22 Engesserstraße 7 76131 Karlsruhe

5:05 - 5:07 PM

#### Why a solid tritium source was not an option for KATRIN

##### Speaker

Lutz Bornschein

5:07 - 5:09 PM

#### Characterization of Tritium Retention in Solid Samples

##### Speakers

Moritz Hellmann, Genrich Zeller

5:09 - 5:11 PM

#### Atomic Hydrogen Beam Characterization Techniques for the KAMATE Collaboration

##### Speakers

Ms Aya El Boustani, Ms Brunilda Mucogllava

5:11 - 5:13 PM

#### Characterization of an inductively coupled plasma source for atomic hydrogen with optical emission spectroscopy

##### Speakers

David Frese, Görkem Yavuz

5:13 - 5:15 PM

#### ELECTRON - Development of High Resolution Metallic Microcalorimeters for a Future Neutrino Mass Experiment

##### Speaker

Neven Kovac

5:15 - 5:17 PM

#### Search for keV sterile neutrino with the TRISTAN detector at KATRIN

##### Speaker

Dr Anthony Onillon

5:17 - 5:19 PM

#### Coupled Gas Dynamics Simulations and Superconducting Magnet Design for High-Flow Millikelvin Atomic Tritium

##### Speaker

Alec Lindman

5:19 - 5:21 PM

#### Probing new light bosons with the KATRIN experiment

##### Speaker

Joscha Lauer

5:21 - 5:23 PM

#### TRIMS: The Molecular Physics of Tritium Decay

##### Speaker

Diana Parno

5:23 - 5:25 PM

#### Search for neutrino mass - 8 decades of tritium source evolution

**Speaker**

Beate Bornschein

5:25 - 5:27 PM

**Qualification measurements towards a new KATRIN Rear Wall****Speaker**

Kerstin Trost

5:27 - 5:29 PM

**KATRIN-like MINI-MAC-E Filter with a tritium source for the advanced physics lab course****Speaker**

Sarah Untereiner

5:29 - 5:31 PM

**Measurement of the Tritium Column Density at the KATRIN Experiment****Speakers**

Christoph Köhler, Neven Kovac

5:31 - 5:33 PM

**MAGNETIC-FIELD COMPATIBILITY AND LONGTERM-STABILITY OF TRISTAN DETECTORS FOR THE KATRIN keV STERILE NEUTRINO SEARCH****Speakers**

Ms Fiona Braun, Simon Gentner

5:33 - 5:35 PM

**Atomic Tritium Analytics for Future Neutrino Experiments****Speaker**

Tobias Geier

5:35 - 5:37 PM

**Simulation of electron energy loss in the KATRIN source****Speakers**

Chloe Goupy, Xaver Stribl

5:37 - 5:39 PM

**Search for keV-Scale Sterile Neutrinos with TRISTAN at KATRIN Using Neural Simulation-Based Inference****Speaker**

Luca Fallböhrmer

5:39 - 5:41 PM

**Analysis strategies for determining the neutrino mass with the final KATRIN data set****Speakers**

Jan Plößner, Karo Erhardt, Khushbakht Habib, Svenja Heyns

5:41 - 5:43 PM

**Development of KICS multiplexing lines for HOLMES+ experiment****Speaker**

Sara Gamba

6:35 PM