

### Participation fees

- Regular: 250 EUR
- Registration until September 15: 200 EUR
- Students: 150 EUR (valid student card required)

Payment upon invoice.

Further details at [www.molas-workshop.org](http://www.molas-workshop.org)

### Freiburg – »Green City«

Freiburg, internationally known as »Green City«, has a long tradition in sustainability. The city is also known for its scientific excellence. It is home to the renowned University of Freiburg and numerous research institutes. With a local staff of 2600, Freiburg is the largest Fraunhofer location in Germany.

*Beautiful landscape • Historic old town • Scientific excellence*

The capital of the Black Forest offers a multitude of sights and attractions. Visitors will find a rich and varied landscape in the vicinity, delicious regional food at one of Europe's loveliest markets, and architectural treasures such as the Cathedral, one of Germany's preeminent churches.

### Venue

Fraunhofer Institute for Physical Measurement Techniques IPM  
Georges-Köhler-Allee 301  
79110 Freiburg, Germany

### Chair

Prof. Dr. Alexander Reiterer, Fraunhofer IPM

### Organization

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### Directions

[www.ipm.fraunhofer.de/directions](http://www.ipm.fraunhofer.de/directions)

### Further information

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 **Fraunhofer**  
IPM

**MoLaS**  
Mobile Laser Scanning | Technology Workshop

**Keynote by**  
**Bernd Walser**  
Vice President R&D  
Reality Capture at  
Leica Geosystems

**November 27–28, 2024**

**MoLaS Technology  
Workshop 2024**

**Key Technology Drivers in Mobile Laser Scanning**



# Program

Wednesday, November 27

Thursday, November 28

## Technological trends in mobile laser scanning

Mobile laser scanning technology has been conquering more and more areas of application in recent years. With systems becoming smaller and lighter, new possibilities are opening up, from airborne scanning to robot-assisted systems. Innovative AI-based approaches to data analysis make it possible to extract a maximum amount of information from the data.

At the 5th MoLaS Technology Workshop, leading experts from science and industry will share insights into key drivers and future applications of LiDAR technology. LiDAR mapping has evolved into an indispensable tool for surveying various types of infrastructure. At MoLaS 2024, we will discuss trends in infrastructure monitoring using mobile laser scanners.

### Four Sessions

- ▶ Hardware
- ▶ Data processing
- ▶ Applications
- ▶ Trends

The workshop is aimed at scientists, service providers, manufacturers and users of the technology.

**We are looking forward to meeting you at MoLaS 2024!**

12:30 h Registration

13:30 h	Opening <i>Alexander Reiterer, Fraunhofer IPM</i>	Hardware
14:00 h	Laser-based detection of subsurface anomalies <i>Valentin Vierhub-Lorenz, Fraunhofer IPM</i>	
14:30 h	Multi-spectral UAV-borne laser scanning: A novel approach for avalanche risk assessment <i>Lars Rathmann, Uni Freiburg</i>	

15:00 h Coffee break

15:30 h	Applications for real-time AI on mobile mapping systems <i>Benedikt Rombach, Fraunhofer IPM</i>	Data processing
16:00 h	Homogenisation and propagation of positional accuracy in mobile mapping data <i>Daniel Wujanz, Technet GmbH</i>	
16:30 h	Accuracy evaluation of mobile mapping point clouds – trends and challenges <i>Christoph Holst, Technical University of Munich</i>	
17:00 h	Shaping the future of reality capture through research & development <i>Bernd Walser, Leica Geosystems</i>	Keynote

18:00 h Get-together | Finger food

8:30 h	Subsea LiDAR solutions: airborne and underwater mapping and inspection <i>Christoph Werner, Fraunhofer IPM</i>	Applications
9:00 h	Integration of the Fraunhofer ULi on the HCU survey vessel Dvocean <i>Ellen Heffner, HCU HafenCity Universität Hamburg</i>	
9:30 h	Monitoring on German federal waterways: challenges and perspectives <i>Florian Zimmermann, BfG Bundesanstalt für Gewässerkunde</i>	

10:00 h Coffee break

11:00 h	Autonomous measurement robotics: current developments and trends <i>Dominik Merkle, Fraunhofer IPM</i>	Trends
11:30 h	On-board generation of large scale TSDFs on mobile systems <i>Thomas Wiemann, Hochschule Fulda University of Applied Sciences</i>	
12:00 h	Concluding remarks <i>Alexander Reiterer, Fraunhofer IPM</i>	

12:15 h Workshop end