

#### **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

## 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 2500, 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

Tanja Hagios Phone +49 761 8857-320 Fax +49 761 8857-234 molas@ipm.fraunhofer.de

#### Directions

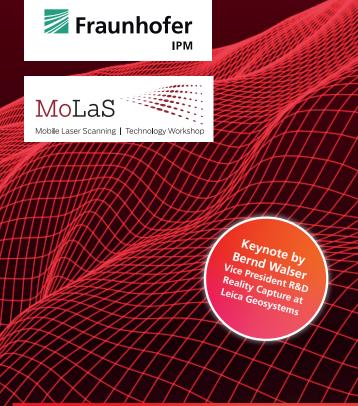
www.ipm.fraunhofer.de/directions

Further information www.molas-workshop.org



#### supported by

German Society for Photogrammetry, Remote Sensing and Geoinformation (DGPF) e.V IPM (title), Fraunhofer IPM



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 Al-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 Alexander Reiterer, Fraunhofer IPM	
14:00 h	Laser-based detection of subsurface anomalies Valentin Vierhub-Lorenz, Fraunhofer IPM	are
14:30 h	Multi-spectral UAV-borne laser scan- ning: A novel approach for avalanche risk assessment Lars Rathmann, Uni Freiburg	Hardware

#### 15:00 h Coffee break

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

## 18:00 h Get-together | Finger food

8:30 h	Subsea LiDAR solutions: airborne and underwater mapping and inspection Christoph Werner, Fraunhofer IPM	
9:00 h	Integration of the Fraunhofer ULi on the HCU survey vessel Dvocean Ellen Werner, HCU HafenCity Universität Hamburg	Applications
9:30 h	Monitoring on German federal water- ways: challenges and perspectives Florian Zimmermann, BfG Bundesanstalt für Gewässerkunde	٩

#### 10:00 h Coffee break

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

## 12:15 h Workshop end