



Please register online as of May 1, 2022 at

www.molas-workshop.org

Participation fees

- »Early Bird« registration until Sept.17, 2022: 200 EUR
- Participants: 250 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 Our address as of August 1, 2020:

Georges-Köhler-Allee 301, 79110 Freiburg, Germany

Chair

Prof Dr Alexander Reiterer, Fraunhofer IPM

Organization

Tanja Hagios

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Directions

www.ipm.fraunhofer.de/directions

Registration and further information

www.molas-workshop.org



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key notes on Low-cost LiDAR Low-cost LiDAR Autonomous Autonomous Driving

November 23-24, 2022

MoLaS Technology Workshop 2022

Key Technology Drivers in Mobile Laser Scanning



PROGRAM



WEDNESDAY, NOVEMBER 23

THURSDAY, NOVEMBER 24

Technological trends in mobile laser scanning

Mobile laser scanning technology has been conquering more and more areas of application in recent years. Significantly smaller systems enable airborne laser scanners, for example. They have proved to be a valuable tool for surveying various types of infrastructure. It is becoming apparent that LiDAR technology is well on its way to become a key enabler for Building Information Modeling and autonomous driving. New strategies for data evaluation play a decisive role in this process.

At the 4th International MoLaS workshop, eleven internationally renowned experts will present key technology drivers and future applications in mobile laser scanning. Four sessions cover the entire spectrum of laser scanning technology:

- **▶** Trends
- **▶** Applications
- ► Autonomous driving
- **▶** Data interpretation

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

We are looking forward to meeting you at MoLaS 2022!

12:30	h	Reg	istr	ation

13:30 h	Opening Alexander Reiterer, Fraunhofer IPM		
13:45 h	Current trends in LiDAR sensor technologies – an overview Gottfried Mandlburger, Vienna University of Technology	spu	
14:30 h	Leaking? Simultaneous moisture and shape detection via multispectral laserscanning Valentin Vierhub-Lorenz, Fraunhofer IPM	Trends	

15:00 h Coffee break / Poster session

15:45 h	Extrinsic self-calibration of LiDAR-based mapping systems by means of geometric 3D features Boris Jutzi, Karlsruhe Institute of Technology KIT	
16:15 h	SLAM-based indoor scanning Andreas Wagner, ANGERMEIER INGENIEURE	Applications
16:45 h	Fusion of 2D image and 3D point cloud mobile mapping data for monitoring the state of the road environment Roderik Lindenbergh, Delft University of Technology	App
17:15 h	Making 3D LiDAR suitable for mass production Terje Noevig, Blickfeld GmbH	Keynote I

18:00 h Get-together / Finger food

9:00 h	Going scale — challenges of mass production for autonomous driving with machine learning algorithms Alexander Braun, Hochschule Düsseldorf	Keynote II
9:45 h	LiDAR sensors for automated driving Christoph Stiller, Karlsruhe Institute of Technology KIT	s driving
10:15 h	Development of low-cost mobile mapping systems for challenging environments Michael Bleier, University of Würzburg	Autonomous driving

10:45 h Coffee break / Poster session

11:30 h	Semantic segmentation in point clouds – geometric approaches vs machine learning Moritz Roetner, Fraunhofer IPM	interpretation
12:00 h	Analysis and interpretation of 3D point clouds with deep learning Rico Richter, Hasso Plattner Institute / Point Cloud Technology	Data inter
12:30 h	Concluding remarks Alexander Reiterer, Fraunhofer IPM	

12:45 h Workshop end