



W3+ Fair Convention and Conference  
**Precision Photonic  
Systems 2022**

Nov 30 – Dec 01, 2022  
Messequartier Dornbirn

**IMP** | Institut für Mikrotechnik  
und Photonik

**W3+** FAIR  
CONVENTION  
RHINE VALLEY

# A new conference in the high tech region

The scientific conference «Precision Photonic Systems» aims to bring together scientists from photonics, microtechnology and electronics and offer an exchange platform with leading industries within the high tech fair W3+.

In four sessions, the program covers application-oriented topics in the field of optics and optoelectronics, covering presentations from photonic manufacturing processes, photonic systems and sensors, miniaturization of photonic systems to electronics and image processing.

The conference is in parallel to the high tech fair W3+. Between the sessions, there is enough time to visit the industry exhibition in the same building. This offers the exclusive chance to combine a scientific conference with meeting the relevant industry at the same time.

Each day will be closed by a networking apéro and after day one, an optional conference dinner can be booked, too.

Reserve two days for meeting your partners, build your scientific and industrial network and learn about latest trends and developments.

We are looking forward to meeting you in person!  
Sincerely

The program committee of Precision Photonic Systems '22



Andreas Ettemeyer  
Head of Institute of Microtechnology and Photonics

## Ticketing and Prices

<b>Ticket</b>	<b>Standard price</b>	<b>Reduced price *)</b>	<b>Students</b>	
One Session	148 €	98 €	48 €	Including entrance to fair W3+
Whole day (2 Session)	248 €	168 €	78 €	Including entrance to fair W3+
Total Conference (4 Sessions)	398 €	268 €	128 €	Including entrance to fair W3+
Conference dinner	59 €	59 €	59 €	To be ordered, separately

\*) Reduced prices for members of the following organizations: Swissphotonics, Swissmem Photonics (NTN Innovation Booster Photonics)



[tickets.fleet-events.de/en/shop/w3-fair-rheintal-2022/conference](https://tickets.fleet-events.de/en/shop/w3-fair-rheintal-2022/conference)



### Date of conference

November 30 and December 1 2022  
9:30 to 17

### Venue

Messequartier Dornbirn GmbH  
Messeplatz 1, Halle 12  
6850 Dornbirn | Österreich

<https://w3-fair.com/rheintal>

### Sponsors

**SWISS PHOTONICS**



# Precision Photonic Systems 2022

November 30, 2022 – morning

Session 1	<b>Precision Optics Generation</b> <b>Chair: Oliver Föhnle</b>	10:50	<b>Femto-second laser processing in borosilicate glass</b> <b>David Bischof, OST</b>
9:00	<b>Opening of Conference</b> <b>Andreas Ettemeyer</b>	11:10	<b>Augmented and mixed reality applications: where optics and semiconductor coating technologies meet</b> <b>Silvia Schwyn-Thoeny, EVATEC</b>
9:10	<b>Keynote</b> New technologies as key components in optical systems – which key fits into which lock? <b>Marco Hanft, Zeiss</b>	11:30	<b>Laser polishing of new materials</b> <b>Oliver Föhnle, OST</b>
9:50	<b>Keynote</b> Selective laser etching: an enabling technology for boosting quantum computing <b>Amando Bautista, Salvador</b>	11:50	<b>Wafer-level Packaging of Micro-Optics</b> <b>Wladimir Sklarenko, Axetris</b>
10:30	<b>Break</b>	12:10 Uhr	<b>End of session 1</b>

# Precision Photonic Systems 2022

November 30, 2022 – afternoon

Session 2	<b>Systems and sensors for specific applications</b> <b>Chair: Samuel Huber</b>	15:40	<b>Keynote</b> Advanced digital technologies in Life Sciences: Photonics and beyond <b>Samantha Paoletti, CSEM</b>
14:00	<b>Keynote</b> Photonics metrology in the nanoscale <b>Stephan Reichelt, Uni Stuttgart</b>	16:20	<b>Accurate alignment system for photonic based biosensor cartridges</b> <b>Gerald Ebberink, Saxion</b>
14:40	<b>In process measurement for precision manufacturing of optical components</b> <b>Thomas Liebrich, Rhysearch</b>	16:40	<b>Photonic textiles for biomedical applications</b> <b>Luciano Boesel, EMPA</b>
15:00	<b>Mini LDV</b> <b>Martin Löffler-Mang, HTW Saarland</b>	17:00	<b>End of session</b>
15:20	<b>Break</b>		

# Precision Photonic Systems 2022

December 1, 2022 – morning

Session 3	Miniaturization of photonics and photonic microsystems <b>Chair: Tobias Lamprecht</b>	10:40	Keynote Photonic system integration by applying glass based microelectronic packaging approaches <b>Henning Schröder, Fraunhofer IZM</b>
09:00	Keynote The micro-optics revolution <b>Reinhard Völkel, Suess</b>	11:20	Development and production of a miniaturized highspeed TOF sensor <b>Alexander Grabher, Escatec</b>
09:40	Laser-based 3D printing <b>Rolando Ferrini, FEMTOprint</b>	11:40	Recent advances in angle encoder technology <b>Markus Wenk, Hexagon</b>
10:00	Design & development of a miniaturized on-chip interferometer <b>Nikolaus Floery, VarioOptics</b>	12:00	End of session
10:20	Break		

# Precision Photonic Systems 2022

December 1, 2022 – afternoon

Session 4	Electronics and image processing in photonics <b>Chair: Guido Piai</b>	16:00	Invisible (optical) counterfeit protection with smartphones <b>Jörg Eberhardt, HSRV</b>
14:00	Keynote Sub-Nanosecond photonics <b>Beat DeCoi, EPC</b>	16:20	Increasing the quantum efficiencies of advanced photonic imagers with microlens arrays <b>Frédéric Zanella, CSEM</b>
14:40	Advanced door area monitoring <b>Udo Birk, FHGR</b>	16:40	Some amplifier circuits for discrete photo-detectors <b>Guido Piai, OST</b>
15:00	Break		
15:20	A Textile-based tissue oxygenation sensor using multi-wavelength near-infrared spectroscopy <b>Oliver Kress da Silva, Uni Bern</b>	17:00	Closing of conference <b>Andreas Ettemeyer, OST</b>
15:40	Wireless Power Transfer for an Eye Implant <b>Chantal Boyer, Helbling Technik Bern</b>	17:10	End of session