



4th International Workshop on
Laser-Ultrasound for Metals

25th - 26th September 2019

PROGRAMME

You are cordially invited to the "4th International Workshop on Laser-Ultrasound for metals" to be held at RECENTDT, the Research Center for Non-Destructive Testing in Linz (Austria), from September 25th to 26th, 2019.

Following the previous workshops held at the University of British Columbia (Canada) and the metals research institute Swerim (former Swerea Kimab, Sweden), the workshop will be open to all parties from academia and industry.

The aim of the workshop is the exchange of academic and application-oriented knowledge between scientists from universities, research institutions and industry.

www.recendt.at/en/laser-ultrasound-for-metals.html

Wednesday, 25th September 2019

08:30 – 09:30	Registration and Welcome Reception
09:30 – 09:40	Peter Burgholzer, CEO Opening RECENDT GmbH, Austria
09:40 – 10:00	Bernhard Reitingner LUS at RECENDT, a historical retrospect RECENDT GmbH, Austria
10:00 – 10:40	Matt Clark INVITED TALK Spatially resolved acoustic spectroscopy (SRAS) microstructural imaging University of Nottingham, United Kingdom
10:40 – 11:00	Marc Choquet GOLD SPONSOR Sponsor presentation TECNAR Automation, Canada / Gleeble - Dynamic Systems, USA
11:00 – 11:30	Coffee Break
11:30 – 11:50	Adrien Renaud Numerical investigation of ultrasonic wave scattering in polycrystalline materials Laboratory MSSMat, Université Paris-Saclay, France
11:50 – 12:10	Tomáš Grabec Numerical modeling of acoustic-wave scattering in polycrystalline media Institute of Thermomechanics CAS, Czech Republic
12:10 – 12:30	Martin Ryzý Measurement of effective surface acoustic wave attenuation in polycrystalline aluminum RECENDT GmbH, Austria

12:30 – 13:50	Lunch Break
13:50 – 14:10	Mikael Malmstroem Comparative study of structures in annealed 304 stainless steel using laser-ultrasonics (LUS) in combination with EBSD and XRD SWERIM AB, Sweden
14:10 – 14:30	Petr Sedlák Characterization of $\beta \rightarrow (\omega)$ phase transition in β -Ti alloys by laser-ultrasound Institute of Thermomechanics CAS, Czech Republic
14:30 – 14:50	Edgar Scherleitner Dilatometer with LUS for Microstructure Characterisation RECENDT GmbH, Austria
14:50 – 15:10	Heinz Renner GOLD SPONSOR Sponsor presentation Linseis Messgeräte GmbH, Germany
15:10 – 15:20	Group Photo
15:20 – 15:40	Coffee Break
15:40 – 16:00	Bing Tie Next LUS4Metals Workshop Presentation Laboratory MSSMat, Université Paris-Saclay, France
16:00 – 17:00	Lab Tour & parallel B2B meetings “Meet the Experts”
18:30	Evening Reception / Dinner at “Teichwerk”

Thursday, 26th September 2019

08:30 – 09:00 Registration and Welcome

09:00 – 09:40 **Francesco Banfi** INVITED TALK

Sensing of Trapped Fluids in Nanoporous Thin Metal Films by Picosecond Ultrasonics
Université de Lyon, France

09:40 – 10:00 **Mike Hettich**

Metal film adhesion in heterogeneous layer systems
RECENDT GmbH, Austria

10:00 – 10:20 **Felix Brand**

Characterization of aluminium oxide layers with a laser ultrasonic setup using the dispersion of Rayleigh waves
Coburg University, Germany

10:20 – 10:40 **Clemens Grünsteidl**

Using zero-group-velocity Lamb waves to determine thickness and bulk sound velocities of isotropic plates
RECENDT GmbH, Austria

10:40 – 11:00 Coffee Break

11:00 – 11:20 **Norbert Huber**

Robot aided LUS for joints and welds
RECENDT GmbH, Austria

11:20 – 11:40 **Wolfgang Haderer**

LUS for Hardness Penetration Depth Imaging
RECENDT GmbH, Austria

11:40 – 12:00 **Bruno Pouet** GOLD SPONSOR

Sponsor presentation
Sound & Bright, California, USA

12:00 – 13:30 Lunch Break

13:30 – 13:50 **Sandra Megahed**

Hybrid Tooling using Laser Powder Bed Fusion: Possible applications for Laser Ultrasound
RWTH Aachen, Germany

13:50 – 14:10 **Anton Jansson**

Nondestructive Evaluation with Laser Ultrasound of Powder Bed Fusion Printed Metal
Swerim AB, Sweden

14:10 – 14:20 Closing Ceremony

14:20 – 15:30 Second Lab Tour *(multiple single groups will be arranged)*

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