# **Customer Week Austria**

Forum for High-Temperature Testing, Industry Day and Academia Day June 7 - 10, 2022 (in Vienna and Fürstenfeld)











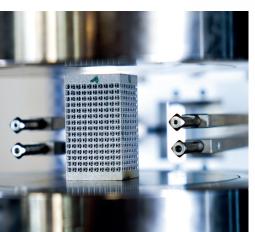


### **Customer Week Austria**

Customer Week Austria 2022 addresses advances in testing technology in the important innovation fields of additive manufacturing and high-temperature applications. Together with stakeholders from science, research and industry, you will be able to learn about innovations and trends within the framework of three modularly structured events and exhibitions and discuss them in an exchange with speakers and other participants. In addition to updates on the latest technology, you will receive valuable information that you can apply in your everyday testing routine.

Take the opportunity to gain new inspiration through practical presentations and workshops. Engage in discussions with international experts from research and development as well as from materials testing and quality assurance and expand your network with like-minded people.

The week is designed as a comprehensive event guided by a supporting, attractive agenda. However, if preferred, you may also book the individual sessions independently from each other.







#### High-Temperature Days at ZwickRoell Fürstenfeld

Date: Tuesday, June 7, 2022 and Wednesday, June 8, 2022

Key topics: High-temperature testing, creep testing, thermomechanical fatigue testing,

and non-contact strain measurement

Presentation language: English

Participation is free of charge

More information and registration: zwickroell.com/ customerweek

#### Industry Day at TU Wien incl. exhibition

Date: Thursday, June 9, 2022

Key topics: Additive manufacturing and testing technologies for safe and reliable products and processes

Presentation language: German (English simultaneous translation available upon request – feedback via registration form)

Participation is free of charge

#### Academia Day at TU Wien

Date: Friday, June 10, 2022

Key topics: Linking microstructure to macroscopic properties – with a special focus on AM

Presentation language: English

Participation is free of charge

The evening before: Dinner at the Vienna City Hall

We will be happy to book a hotel room in Fürstenfeld and/or Vienna for your stay at your expense. If you need assistance with transfers, please include this information on the registration form.



## **ZwickRoell Forum for High-Temperature Testing**

### June 08, 2022 in Fürstenfeld, Austria

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from 8:30 AM	Arrival and registration at ZwickRoell in Fürstenfeld
08:45 AM	Welcome by Peter Ruchti ZwickRoell Testing Systems GmbH
09:00 AM	Can Tubular Specimen be an Alternative for Hydrogen Autoclaves - Test System and Recent Results Dr.Ing. Ken Wackermann, Fraunhofer Institute for Mechanics of Materials IWM, Germany
	Guided tour directly at the exhibits (parallel to the lecture)
09:45 AM	High-Temperature Behaviour of Nuclear Fuel Cladding Materials during Accidents and Long-Term Dry Store Mirco Große, Karlsruhe Institute of Technology, Germany
	Guided tour directly at the exhibits (parallel to the lecture)
10:30 AM	Coffee break
10:45 AM	The Top Creep and Oxidation Resistant ODS Alloy - Challenging Material for Structural Application in Testing Machines up to 1300°C Dr. Jiri Svoboda, IPM, Czech Republic
	Guided tour directly at the exhibits (parallel to the lecture)
11:30 AM	Electron Beam Based Additive Manufacturing of Non-Weldable Superalloys for Turbine Engine Application and AM Specific Requirements on High-Temperature Material Testing Dr. Markus Ramsperger, GE Additive, Sweden
	Guided tour directly at the exhibits (parallel to the lecture)
12:15 PM	Lunch
01:00 PM	High Temperature Corrosion Fatigue Testing in Critical Aerospace Components  Dr. Hollie Cockings, Swansea University, United Kingdom
	Guided tour directly at the exhibits (parallel to the lecture)
01:45 PM	Material Characterization for Turbomachinery Applications - L-PBF INC718 creep behavior near yield stress Matilde Scurria, TEC Eurolab, Italy
	Guided tour directly at the exhibits (parallel to the lecture)
02:30 PM	Daily Routines and Case Studies in High-Temperature - Static Testing of Nickel-Based Superalloys  Asim Efe Arsal, TEI, Turkey
	Guided tour directly at the exhibits (parallel to the lecture)
03:00 PM	Coffee break —
03:00 - 05:00 PM	Time for individual discussions
03:15 PM	Workshop: Thermo-Mechanical Fatigue Testing
04:00 PM	Workshop: Thermo-Mechanical Fatigue Testing
05:00 PM	Close of event

## **ZwickRoell Industry Day**

4:30 PM

End of event, After Work Drink

Additive Fertigungs- und Prüftechnologien für sichere Produkte und Prozesse Additive Manufacturing and Testing Technologies for Safe and Reliable Products and Processes June 09, 2022, TU Wien, Austria

Agenda	(Lecture language German - English simultaneous translation available upon request – feedback via registration form )
from 8:15 AM	RegistrationUNIVERSITÄT
8:45 AM	Welcome address  Prof. Sabine Seidler, TU Wien  Member of the management, ZwickRoell
09:15 AM	Herausforderung AM – Werkstoffe und Prozesse / AM challenges – materials and processes Prof. Jürgen Stampfl, TU Wien
	Prüfanforderungen im Additive Manufacturing – ein Status / Status Testing Requirements in Additive Manufacturing Dr. Denise Beitelschmidt, ZwickRoell
	Prozesszertifizierung 3D Druck (Praxisbeispiel) Dr. Joachim Rajek, TÜV Austria Services GmbH
10:30 AM	Coffee break
11:00 AM	Form- und Materialwerdung: Digitale Fertigung mittels Hot Lithography Shaping and material generation: digital production using Hot Lithography Dr. Sonja Baumgartner, Cubicure
	Wenn das Pulverbett zu klein wird: AM Werkstoffe & Bauteile für die ESA – Business Case Whenever AM parts exceed the size of the powderbed: AM Materials & Components for Earth and Space DI Michael Kitzmantel, RHP
	testXpert III – sichere Prüfergebnisse / testXpert III – reliable test results Robert Strehle, ZwickRoell
12:00 PM	Lunch
1:00 PM	Mechanische Charakterisierung von additiv gefertigten Keramiken  Mechanical characterisation of additively manufactured ceramics  Dr. Johannes Homa, Lithoz
	Industrielle Computertomographie als Instrument zur Digitalisierung und Qualifizierung additiv gefertigter Bauteile Steffen Hachtel, F & G Hachtel GmbH & Co. KG
	IN718 – Pulverspezifikation für die Luftfahrtzulassung / IN718 – Powder specification for aerospace certification Andreas Rößmann, MTU Aero Engines AG
2:30 PM	Coffee break
3:00 PM	Fortschritte in der lithografiebasierten additiven Fertigung mit Edelstahl  Lithography-based Metal Manufacturing. Complementary to mass production with metal injection molding  Denise Mödder, Incus GmbH
	Wo Mikrospritzguss endet – Additive Fertigung von Objekten mit Strukturelemente von bis zu 100 nm Beyond Microinjection Molding – Additive Manufacturing of Objects with Structural Elements down to 100 nm Dr. Bernhard Küenburg, Up-Nano
	Prüftechnik in der additiven Fertigung: Statische und dynamische Prüflösungen ZwickRoell

## 11th Academia Day of the ZwickRoell Group

### Linking Microstructure to Macroscopic Properties June 10, 2022, TU Wien, Austria

Agenda	TECHNISCHE
8:15 AM	Registration UNIVERSITÄT
9:00 AM	WIEN Welcome address Prof. Josef Eberhardsteiner, Technische Universität Wien, Austria Klaus Cierocki, ZwickRoell GmbH & Co. KG, Germany
9:30 AM	Additive manufacturing for innovative aerospace parts – process route and characterization  Prof. Frank Brückner, Fraunhofer Institute, Germany
10:00 AM	Nanostructured metallic alloys: Tuning microstructure and mechanical properties  Prof. Jürgen Eckert, University of Leoben, Austria
10:30 AM	Coffee break
11:00 AM	Local anisotropy in microstructure and properties of additively manufactured materials  Prof. Prashanth Konda Gokuldoss, Tallinn University of Technology, Estonia
11:30 AM	Thermodynamics and homogenisation theory as driving forces in the design of novel experiments and the (re-)evaluation of data  Prof. Christian Hellmich, Technische Universität Wien, Austria
12:00 PM	Mechanical characterization and fractography of ceramics produced by additive manufacturing Dr. Johannes Homa, Lithoz GmbH, Austria
12:30 PM	Lunch and photo session
2:00 PM	Title to be defined Prof. Johannes Schleifenbaum, RWTH Aachen University, Germany
2:30 PM	3D-printable materials: Design principles for strong and tough polymers, ceramics and metals Prof. Jürgen Stampfl, Technische Universität Wien, Austria
3:00 PM	Advances in modeling and experimental analysis of laser powder-bed fusion of Ni-based alloys Prof. Ehsan Toyserkani, University of Waterloo, Canada
3:30 PM	Rewarding ZwickRoell Science Award
	Lecture ZwickRoell Science Award 1 <sup>st</sup> prize Lecture ZwickRoell Science Award 2 <sup>nd</sup> prize Lecture ZwickRoell Science Award 3 <sup>rd</sup> prize
4:45 PM	ZwickRoell Academia Day 2023: Introduction of the host
5:00 PM	Closing address



