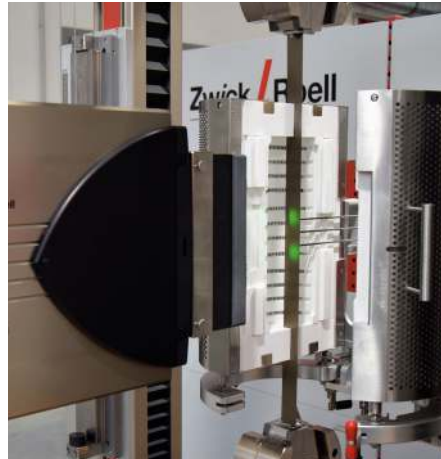


ZwickRoell Forum for High-Temperature Testing


9th April 2019, Fürstenfeld, Austria



Welcome to the ZwickRoell Forum for High-Temperature Testing

We look forward to welcoming you to Messphysik's premises. Our program of lectures and workshops offers an opportunity to learn about the latest trends and developments in high-temperature testing, creep testing and optical strain measurement. The event provides a setting where experts from research and development, materials testing and quality assurance can meet and exchange information on this specialized field.

Take advantage to discuss - also concurrently to lectures and workshops - the latest testing options with internationally recognized specialists directly alongside the testing machines on display.

- Creep and creep-fatigue testing under alternating load
- Creep testing and creep crack growth testing
- Fatigue crack growth tests and creep fatigue crack growth tests
- Thermo-mechanical fatigue testing 
- High-temperature tensile tests in air (up to 1,200°C / up to 1,500 °C)
- Non-contact optical strain measurement at high temperatures
- Testing of hydrogen embrittlement
- Creep testing of plastics and composites
- Modernization options for creep testing machines
- Customized applications



ZwickRoell Forum for High-Temperature Testing

9th April 2019, Fürstenfeld, Austria

- 08:20 a.m. *Arrival at Messphysik's premises*
- 08:45 a.m. **Welcome by Dr. Jan Stefan Roell and Peter Ruchti**
ZwickRoell GmbH & Co. KG, Germany and Messphysik Materials Testing GmbH, Austria
- 09:00 a.m. **Lecture: Creep measurements on carbon containing refractories**
Martin Stückelschweiger, K1-MET GmbH, Austria
- 09:35 a.m. **Lecture: Thermo-mechanical fatigue testing**
Dr. Karl-Heinz Lang, Karlsruher Institute of Technology, Germany
- 10:10 a.m. *Coffee break*
- 10:25 a.m. **Workshops* WS1-EN, WS5-EN, WS9-DE**
- 11:05 p.m. **Lecture: Measurement of mechanical properties up to 1600 °C for the development of high-stressed sinter materials**
Clemens Steinborn, Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Germany
- 11:30 a.m. **Lecture: Compressive creep behavior of ZrB₂-SiC based ultra-high temperature composites**
Prof. Rahul Mitra, Indian Institute of Technology, Kharagpur, India
- 12:05 noon *Lunch*
- 01:00 p.m. **Workshops* WS2-EN, WS6-DE, WS7-EN**
- 01:40 p.m. **Lecture: Increased exploitation of cfrp composites for aerospace structures under thermo-mechanical loading**
Martin Liebisch, German Aerospace Center (DLR), Institute of Composite Structures and Adaptive Systems, Germany
- 02:15 p.m. **Lecture: Bespoke set ups for thermo-mechanical fatigue testing**
Dr. Mark Whittaker, Swansea University, United Kingdom
- 02:50 p.m. *Coffee break*
- 03:05 p.m. **Lecture**
Prof. Mike Bruhis, McMaster University, Canada
- 03:40 p.m. **Workshops* WS3-DE, WS4-EN, WS8-EN**
- 04:20 p.m. *End of official program time for individual discussions*
- 05:00 p.m. *Close of event*

* Workshops:

WS1-EN; WS2-EN; WS3-DE

High-temperature testing incl. non-contact strain measurement

Dr. Thomas Leitgeb-Simandl, Messphysik Materials Testing GmbH, Austria

WS4-EN; WS5-EN; WS6-DE

Creep testing incl. non-contact strain measurement

Lukas Unger, Messphysik Materials Testing GmbH, Austria

WS7-EN; WS8-EN; WS9-DE

Thermo-mechanical fatigue testing

Stefan Mitterhuber, Messphysik Materials Testing GmbH, Austria



Program changes reserved.

Messphysik Materials Testing GmbH

Flugplatzstraße 5
8280 Fürstenfeld
Österreich

About Messphysik

Messphysik was established in 1983 as a commercial enterprise dealing in materials testing machines and accessories. The fact that contact-type strain measurement instruments were increasingly reaching the limits of their use led to the development of non-contacting strain measurement systems.

Since 2006, Messphysik has been part of the ZwickRoell Group and has positioned itself as a competence center for high-temperature and creep testing, using the possibilities of non-contact strain measurement. Messphysik offers individual test systems for a temperature range of -80 °C up to +2,000 °C. Whether basic or advanced creep tests - our high-precision, versatile and cost-efficient creep testing machines provide the best solution for your applications.

Travel to Messphysik

Messphysik is located in Fürstenfeld 40 minutes away from Graz international airport (GRZ) and 90 minutes from Vienna international airport (VIE), in south-eastern Austria.



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Event participation is free of charge. As far as accommodations, Messphysik has already pre-reserved rooms in the Fürstenfeld area and is happy to assist you with making your individual hotel reservation and airport transfer arrangements.

Pre-event program: time for recreation and sports

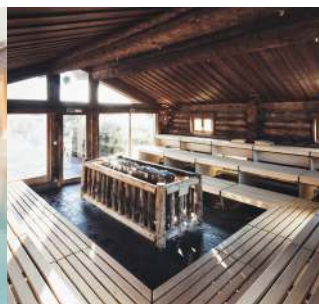
Guests arriving early on Monday 8th April 2019 will be able to spend individual time in/around the 'Das Sonnreich' hotel and Loipersdorf Thermal Spa. Swimming and relaxing in highly mineralized 36°C thermal water, exploring different saunas or running, cycling or golfing in the beautiful Styrian scenery are just some of the activities available. For those with an inquiring mind a behind-the-scenes tour of the thermal spa is available. A convivial evening meal with regional culinary specialties will be served in a traditional tavern within walking distance of the hotel. Be prepared to return to the hotel on an unpaved path by the light of your torch.

Monday, 8th April 2019

from 9:00 a.m.	Individual early arrival and time for recreation and sports <i>Please contact info@sonnreich.at to book treatments or sports activities</i>	
3:00 p.m.	Welcome, registration and refreshments Hotel check-in	
4:00 p.m.	Behind-the-scenes tour of Thermal Spa Loipersdorf (optional, complimentary)	
6:00 p.m.	Meet at the hotel lobby - aperitif	
6:15 p.m.	Walk to the 'Tavern Kropf' - Dinner www.thermenheuriger.at	
10:30 p.m.	Torch-lit walk back to the hotel	



Copyright Therme Loipersdorf



Copyright Thermenheuriger Kropf

E-mail reply to: Yasmin.Schwab@messphysik.com

Your registration will be confirmed by e-mail.

Company: _____

Name: _____

Street: _____

ZIP, City, Country: _____

Tel.: _____ E-mail: _____

The following persons will be accompanying me:

I would like to take part in the following complimentary workshops**

High-temperature testing incl. non-contact strain measurement

Creep testing incl. non-contact strain measurement

Thermo-mechanical fatigue testing

English

WS1-EN

WS2-EN

WS4-EN

WS5-EN

WS7-EN

WS8-EN

German

WS3-DE

WS6-DE

WS9-DE

** Please note: there is a limited number of participants in each workshop.

We will try to take in account your request - alternative assignments are possible.

Billing address / billing information for hotel:

Hotel reservation:

Please reserve for my account ___ single room(s) at max. € 95 per night/person incl. breakfast from _____ to _____

Please organize transfer from: airport Graz (GRZ) time _____ Flight No. _____

Please organize transfer to: airport Graz (GRZ) time _____ Flight No. _____

Complimentary afternoon/evening event on 8th April 2019:

Individual time for recreation and sports _____ persons

will arrive before 3:00 p.m.

Behind-the-scenes tour _____ persons

will take part

will not take part

Evening event/dinner _____ persons

will take part

will not take part

By registering you agree to the processing of your personal data in accordance with our data privacy statement - available at www.messphysik.com. Your personal rights will be respected during the event - please let us know at registration if you do not allow recorded images or film/video recordings to be made of you.