Rolling Stock

- 7 In-service ultrasonic wheel inspection thought
- 13:00 beyond New generation with focus on improved ergonomics, digitalization and operator support

D. Werner¹, <u>B. von Kirchbach¹</u> ¹ Waygate Technologies, Huerth, Germany

- 8 Application of ultrasound-based residual stress
- 13:20 measurement techniques on railway components

<u>I. Poschmann</u>¹, M. Batur¹, A. Specht¹ ¹ W.S. Werkstoff Service GmbH, Essen, Germany

- 9 ACFM innovations to promote more reliable and
- 13:40 efficient maintenance programs <u>C. Tremblay</u>¹ ¹ Eddyfi Technologies, Quebec, Canada
- 10 Mobile automated solid axle inspection in mounted 14:00 condition using phased array technique

<u>T. Rehfeldt</u>¹, S. König¹, A. Weber¹ ¹ Framatome GmbH, Erlangen, Germany

- 11 Application of Ultrasonic Inspection Techniques and
- 14:20 Solutions for China High-speed EMU Wheel and Axle <u>E. Peng</u>¹, Y. Zhang¹, F. Guo¹, S. Eisenreich¹ ¹ DTEC GmbH, Rosbach v. d. Höhe, Germany

14:40 Break

New Challanges

12 Inspection of fiberglass composites and bonding 15:00 with terahertz waves

> J. Jonuscheit¹ ¹ Fraunhofer ITWM, Kaiserslautern, Germany

 13 Visual inspection in railway maintenance. Can this
 15:20 NDT-procedure be optimized through digitization? <u>J. Raabe¹</u>, J. Rasch¹ ¹ J.M. Voith, Kiel, Germany

14 UT, PAUT and MT testing systems for railway
 15:40 components
 W. Deutsch¹

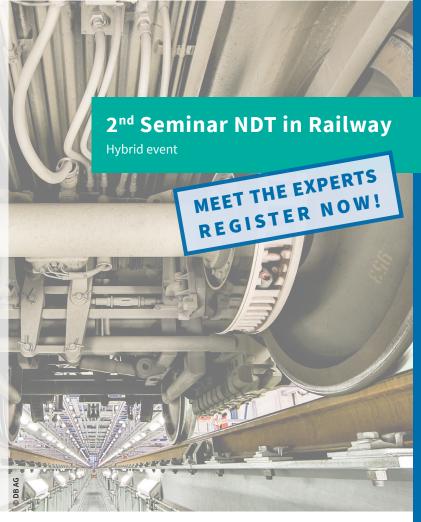
¹ KARL DEUTSCH, Wuppertal, Germany

16:00 Closing marks



DEUTSCHE GESELLSCHAFT FÜR ZERSTÖRUNGSFREIE PRÜFUNG e.V.

INVITATION & PROGRAMME



26 September 2022 | Berlin, Germany

WELCOME

Non-destructive testing of railway components is one of the key technologies for reliable and sustainable operation of high density and high quality rail services.

Climate change is the major driving force for the increase in rail traffic in the next decades. The constantly increasing loadings, train speeds, traffic density and environmental conditions require adaptation of track design, rail and wheelset materials as well as new traction technologies and vehicle design using modern joining methods. Due to the higher demands there are changes in damage mechanisms and an emerge of novel defect types which have to be handled. This poses strong challenges for non-destructive testing of both the rolling stock and the infrastructure which have to be discussed.

With this seminar we will address the modern challenges in nondestructive testing in the railway sector and give an insight into new developments and applications. In addition, the interdisciplinary exchange between science and industry will enable extended networking among the participants.

We will courteously invite you to Berlin or online to participate in an expert exchange of experiences.

We are looking forward to welcoming you to this seminar.

Thomas Heckel | Technical Committee NDT on Railway Dr. Thomas Wenzel | Executive member of the board of the DGZfP

ORGANISATION

Venue: Steigenberger Airport Hotel Berlin Willy-Brand-Platz 3 | 12529 Schönefeld

Fees:	Registration fee	450€
	Students (up to 30 years)	80€
	Virtual participation	350€

Organisation: Steffi Dehlau, DGZfP e.V. Max-Planck-Straße 6 | 12489 Berlin Tel.: +49 30 67807-120 E-mail: tagungen@dgzfp.de

09:00 Opening

Moderation: T. Heckel, Technical Committee NDT on Railway J. Kurz, DB Systemtechnik GmbH

KEYNOTE

1	How to	o transforr	n railway	<pre>infrastructur</pre>	e and
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09:15 operations for a sustainable future H. Diekmann¹ ¹ Konux GmbH, Munich, Germany

STANDARDS

2 Additional certificate – Wheelset Maintenance

10:00 EN16910-1

<u>F. Bey</u>¹, P. Martins¹, J.P. Gielen¹ ¹ COFREND, Paris, France

3 NDT in ECM organisations in the Netherlands

- **10:20** <u>T. de Keijzer</u>¹ ¹ DEKRA Rail, Utrecht, Netherlands
- 10:40 Break

TRACKS

- 4 Solutions for AI based assessment of high-resolution
- 11:00 images as both, stand-alone evaluation and base for automated comparison with continuous UT or ET rail testing.

S. Damm¹

¹ P.U.T. GRAW SP. Z O.O., Gliwice, Poland

5 Al-based Analysis of Eddy Current and Ultrasonic

11:20 Measurement Data in Rail Inspection

A. Simroth 1, R. Casperson 2, T. Heckel 2, <u>A. Friedrich 2, T. Zhang 2 </u>

¹ German Centre for Rail Traffic Research at the Federal Railway Authority, Dresden, Germany; ² Bundesanstalt für Materialforschung und -prüfung (BAM), Berlin, Germany

6 Ultrasonic rail inspection at high-speed using Phased 11:40 Array Ultrasonic Testing

X. Harrich¹

¹ SOCOMATE INTERNATIONAL, Crécy-la-Chapelle, France

12:00 Break

www.dgzfp.de/seminar/railway