



TORSIONAL  
VIBRATION  
SYMPOSIUM

# Program

1<sup>st</sup> TORSIONAL VIBRATION SYMPOSIUM  
May 21<sup>st</sup> – 23<sup>rd</sup>, 2014

Salzburg Congress / AUSTRIA

In co-operation with

**GEISLINGER**® 

*Supporting your vision*



**MTZ** industrial

Organized by

**VIBRA**  
**ASSOCIA**TION  
Schwingungstechnischer Verein

# Thursday: May 22<sup>nd</sup>, 2014

09:30	<b>Opening</b>	
09:45	<b>Keynote: Prof. Georg Wachtmeister</b> TU München, Head of the Institute of Internal Combustion Engines <b>Vibrations: A continuous challenge, a key for reliability, a chance for new features</b>	
<b>Session 1: Torsional Vibration - Plenary Session</b>		
11:00	<b>Crankshaft Torsion as Influencing Factor for Cylinder Pressure Based Analysis</b> (provisonal) Prof. A. Wimmer, J. Stadler TU Graz, Kistler Instrumente AG, GE Jenbacher	
11:25	<b>Influence of emission regulations and fuel saving technologies on torsional vibrations in large engine applications</b> T. Philipp Geislinger GmbH	
11:50	<b>Limiting values of dynamic loads in linear oscillators due to transient excitation</b> Prof. H. Dresig TU Chemnitz	
<b>Session 2A: Powertrain Components</b>		
13:30	<b>Torsional vibrations stresses of alternators used in diesel-electric powertrains of locomotives against the background of increasing cylinder peak pressures</b> P. Stürzl, M. Schuchardt MTU Friedrichshafen GmbH	<b>Session 2B: System Reliability</b>
		<b>Gear problems solved by the analysis of torsional vibrations</b> A. Laschet, B. van den Heuvel ARLA Maschinentechnik GmbH, RWE Power AG
13:55	<b>Modeling an electric vehicle powertrain and analysis of vibration characteristics</b> R. Schelenz, M. Wegerhoff, O. Drichel IME, RWTH Aachen University	<b>A full scale investigation of torsional vibration failure of a marine propulsion system intermediate shaft.</b> P. Filcek, K. Banisoleiman, J. Stainsby, S. Mathieson Lloyd's Register, EMEA
14:20	<b>Calculation of an elastic clutch with temperature-sensitive characteristics through system simulation in the time and frequency domains</b> U. Schreiber, C. Spensberger ITI GmbH, Dresden University	<b>Torsional vibration analysis of an emergency diesel generator (EDG-Set)</b> B. Buchmeier TÜV SÜD Industrie Service GmbH
<b>Session 3A: Simulation</b>		
15:20	<b>Efficiency boost in product development processes through support by torsional vibration simulation in early development phases</b> B. Juretzki, R. Schelenz, G. Jacobs IME, RWTH Aachen University	<b>Session 3B: Noise and Vibration</b>
		<b>Noise and vibration challenges due to torsional excited gearbox vibrations</b> P. Tellefsen, Kevin Cunningham Lloyd's Register Consulting
15:45	<b>Influence of simulation model detail on determinable natural frequencies</b> B. Schlecht, T. Rosenlöcher Institute of Machine Elements & Machine Design, TU Dresden	<b>Reduced transfer of structure borne sound in couplings</b> L. Kurtze, T. Philipp Geislinger GmbH
16:10	<b>Analysis of dynamic interaction between crankshaft and connecting rod through the use of complex nonlinear calculations</b> H. Roeser, C. Windelev Transmarine Propulsion Systems Inc.	<b>Vibration dynamics simulation of a diesel engine coupled system with flexible coupling under misfiring using physical and finite element modeling</b> M. Hasan, J. Holmberg, H. Kirschev Centa Antriebe Kirschev GmbH, Wärtsilä Ship Power

	<b>Session 4A: Industrial Applications</b>	<b>Session 4B: Fundamental Engineering</b>
17:00	<b>Linear and torsional vibration study for an engine driven compressor system</b> W. Wang, J. Braun, R. Chundi, R. Khan IDC Technical Services	<b>Introduction of the new torsional vibration guideline VDI 2039 under special consideration of damping</b> F. Knopf, T. Philipp Hasse & Wrede GmbH, Geislinger GmbH
17:25	<b>Lateral-torsional vibration coupling in reciprocating compressors</b> F. Newman, T. Stephens, R. Harris Ariel Corporation	<b>Fuel efficient propeller design and torsional vibrations in propulsion machinery</b> G. Dahler, J. J. Ileskär, J. Holm DNV / GL
17:50	<b>Experience with torsional vibration measurements and calculations of reciprocating compressors</b> J. Lenz KÖTTER Consulting Engineers	<b>Self-excited torsional vibration phenomenon on specialized vessel electric propulsion systems</b> Prof. D. C. Lee, R. D. Barro Mokpo Maritime University, South Korea

## Friday: May 23<sup>rd</sup>, 2014

	<b>Session 5A: Ice Impact</b>	<b>Session 5B: Active Control</b>
08:50	<b>Ice impact simulation for propulsion machinery</b> S. Persson MAN Diesel & Turbo, Copenhagen	<b>Active measures to reduce torsional vibrations</b> M. Matthias Fraunhofer LBF, Darmstadt
09:15	<b>Meeting ice impact analysis requirements through a unified Modeling for transient and frequency domain simulation</b> A. Abel, U.Schreiber ITI GmbH	<b>Active control of crankshaft vibrations</b> M. Steidl, F. Knopf Hasse & Wrede GmbH
09:40	<b>Simulation of torsional vibration responses in ship propulsion shafting system caused by ice impacts</b> Yu. Batrak, A. Serdiuchenko, A.Tarassenko Intellectual Maritime Technologies, Ukraine	<b>Control and correlation of mainshaft torsional modes on windturbines and off-axis loaded dynamometers</b> W. L. Erdman DNV KEMA
	<b>Session 6A: Engine Development</b>	<b>Session 6B: Measurement and Testing</b>
10:20	<b>Firing sequence optimization for a V20 cylinder diesel engine</b> C. Henninger Liebherr Machines Bulle	<b>Correlation of simulation to test for a flexibly coupled two-bearing generator system</b> R. Zadoks, J. J. Ileskär, T. Utengen Caterpillar Inc., DNV GL
10:45	<b>Firing order optimization in FEV virtual engine</b> K. Buczek, S. Lauer FEV Krakow, FEV GmbH	<b>Various torsional vibration measurement techniques for optimal trade-off between high accuracy and ease of instrumentation</b> A. Palermo, L. Britte, K. Janssens Universita' della Calabria, Kath. Universiteit Leuven, LMS International
11:10	<b>Cranktrain design using coupled calculations and multicriteria optimization</b> Peter Böhm MAN Diesel & Turbo, Augsburg	<b>Contactless method to determinate the rotation angle in torsional vibration based on video image correlation (VIC-3D) measuring system</b> I. Száva, S. Vlase, B.P. Gálfi, P. Dani, I. Serban University of Brasov, Geislinger GmbH
11:35	<b>Crank train torsional vibration optimization</b> C. Priestner, T. Ovari, M. Brunner, F. Zieher AVL List GmbH	<b>The comparison between measured and calculated torsional vibration loads in 2-stroke marine installations</b> Martin Barraud, Philipp Bättig, R. Gläser Wärtsilä



# TORSIONAL VIBRATION SYMPOSIUM

## Goal

The goal of the Symposium is to offer a unique event for experts involved in torsional vibration from all over the world.

## Social Program

	<b>Wednesday: 21<sup>st</sup> May, 2014</b>
18:00	<b>Welcome dinner*</b> , Restaurant "St.Peter Stiftskeller" Salzburg
	<b>Thursday: 22<sup>nd</sup> May, 2014</b>
20:00	<b>Gala dinner*</b> , Restaurant "M32" in Salzburg
	<b>Friday: 23<sup>rd</sup> May, 2014</b>
13:00	<b>Social program</b> , Wolfgangsee/Boatride/Schafberg - Tour

## Participation fee

We would be delighted to welcome you to the 1<sup>st</sup>Torsional Vibration Symposium 2014 in Salzburg.

**Standard rate\*:** EUR 990,-

**Early bird rate\*:** EUR 890,- (before December 31<sup>st</sup>, 2013)

For registration please fill in the registration form at our website: [torsional-vibration-symposium.com/registration](http://torsional-vibration-symposium.com/registration)

\* The participation fee includes welcome dinner, gala dinner, program booklet, digital proceedings, coffee breaks and lunch.

For the third participant from the same company, we will offer a rebate of 30% of the participation fee.

## Exhibition and Sponsoring

We can also offer a limited space for your exhibition stands and sponsoring opportunities.

**Exhibition floor space cost:** EUR 180,- / m<sup>2</sup> (minimum 6m<sup>2</sup>).

## Contact

The organizer of the event is the Vibration Association (Schwingungstechnischer Verein).

E-mail: [info@torsional-vibration-symposium.com](mailto:info@torsional-vibration-symposium.com)

Tel.: +43 662 664146

Website: [torsional-vibration-symposium.com](http://torsional-vibration-symposium.com)

## Symposium Location

Salzburg Congress, Auerspergstraße 6, 5020 Salzburg / AUSTRIA