

# Program

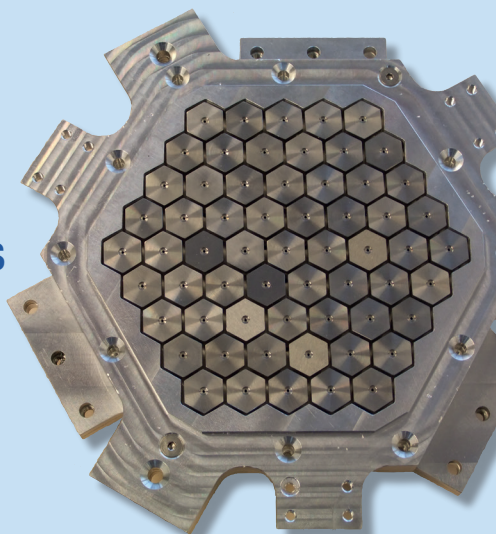
[www.gas-bearing-workshop.com](http://www.gas-bearing-workshop.com)

## 5<sup>TH</sup> GAS BEARING WORKSHOP

March 27, 2023

Courtyard Hotel  
Düsseldorf

- › LECTURES
- › POSTERS
- › TABLE TOPS



ORGANIZING INSTITUTIONS

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Phuc Vuong

### ORGANIZER

For detailed information please contact:

VDE/VDI-Society Microelectronics Microsystems and  
Precision Engineering (GMM)  
Dr. Ronald Schnabel  
Merianstraße 28,  
63069 Offenbach am Main, Germany

Phone: +49 69-6308-227  
Fax: +49 69-6308-9828  
E-Mail: gmm@vde.com

During the workshop:  
Phone: +49 171 4695 118

### IN COOPERATION WITH

Dutch Society for Precision Engineering (DSPE)  
High Tech Campus 1  
5656 AE Eindhoven  
PO Box 80036  
5600 JW Eindhoven  
info@dspe.nl

### POSTERS AND EXHIBITION

All attendees are invited to show a poster representing their field of competence.

We invite companies to join the workshop with a table top exhibition. The fee of 500 Euro (plus VAT) for the table top exhibition includes one ticket for workshop admittance.

For further information please contact the organizer.

### FOREWORD

#### **5<sup>th</sup> Gas Bearing Workshop in Düsseldorf on March 27, 2023**

Since many years the Gas Bearing Workshop has been establishing a forum for the gas bearing community. Scientists, research engineers, users and manufacturers/vendors in this field are invited. Experts in gas bearings are going to present new applications and leading edge R&D. There will be the opportunity for discussion and for personal contacts.

Once more the program reflects the wide application field of gas bearings. On the one hand papers will deal with gas bearings to achieve extreme precision in motion, on the other hand papers examine components that achieve a stable bearing of high speed rotors.

Almost all bearing technologies will be covered in the papers, the spectrum ranging from aerostatic to aerodynamic, from rigid geometries to foil bearing designs. As in the preceding workshops, the program committee tried to consider most of the relevant activities in western Europe, adding one important manufacturer from the US.

I am looking forward to meeting you at the 5<sup>th</sup> GBW 2023 in Düsseldorf. We hope that this workshop will generate impulses and inspiration for scientists and engineers. In addition to that, the program committee wants to present a stage for new personal, scientific and business contacts.

*Wolfram Runge*  
*Chairman of the 2023 Gas Bearing Workshop*

## PROGRAM COMMITTEE AND CHAIRMEN

Wolfram Runge (General Chair)  
*Berliner Hochschule für Technik*

Jos Gunsing (Chairman Program Committee)  
*MaromeTech/Dutch Society for Precision Engineering*

Farid Al-Bender  
*KU Leuven*

Ron A.J. van Ostayen  
*Delft University of Technology*

Ronald Schnabel  
*VDE/VDI-GMM, Offenbach am Main*

## PROGRAM

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09.30	<b>Welcome Reception / Poster Session; Table Top Exhibition</b>
10.00	<b>Opening Word</b> <i>Wolfram Runge, Chairman, Berliner Hochschule für Technik, Germany</i>
10.15	<b>Design for Stability: Insights in porous Bearing Design</b> <i>Joep Nijssen, ASML Veldhoven, The Netherlands</i>
10:45	<b>Research on Gas Foil Bearings at TU Berlin</b> <i>Robert Liebich, Technische Universität Berlin, Germany</i>
11:15	Coffee Break / poster session / table top exhibition

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11:45	<b>Analysis of a Spindle supported by Aerostatic Bearings with external Damping Elements</b> <i>Federico Colombo, Politecnico di Torino, DIMEAS, Department of Mechanical and Aerospace Engineering, Turin, Italy</i>
12.15	<b>Development of a large Tomography Stage</b> <i>Wim Van de Vijver, LAB Motion Systems NV, Leuven, Belgium</i>
12.45	Lunch Break / poster session / table top exhibition
14.00	<b>Air Bearings for Environmental Credits, Turbo Application Examples</b> <i>Drew Devitt, New Way Air Bearings, Aston, USA</i>
14.30	<b>Coating Wear Testing of Air Foil Bearings to Validate Fuel Cell System Applications</b> <i>Duc Ha, Omega Dot Ltd., Worcester Park, UK</i>
15.00	Coffee / Tea Break
15.30	<b>Modelling approaches for the design of gas bearing supported rotors</b> <i>Jürg Schiffmann, EPFL, Lausanne, Switzerland</i>
16.00	<b>Experimental Validation of Numerical Models for Rotordynamic Systems supported by Aerodynamic Bearings</b> <i>Elia Iseli, Fischer AG Präzisionsspindeln, Herzogenbuchsee, Switzerland</i>
16:30	<b>Wrap up/Closure</b> <i>Wolfram Runge, Berliner Hochschule für Technik, Germany</i>
16:45	<b>Informal Discussion and Networking</b>

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**WORKSHOP REGISTRATION**

To register for the Gas Bearing Workshop 2023, please visit the homepage under [www.gas-bearing-workshop.com](http://www.gas-bearing-workshop.com).

**REGISTRATION FEE**

workshop attendance	340 €
table top exhibition (Including one ticket)	500 € + VAT

Payment for registration, including bank charges and processing fees, must be made in Euro. The workshop fee has to be fully paid in advance by credit card. Your registration can only be confirmed if VDE-Conference Services has recorded receipt of your full payment.

In case of cancellation, provided that written notice has been given to VDE-Conference Services before February 27, 2023, the registration fee will be refunded less a handling fee of € 80.00. After February 27, 2023, no refund will be made.

**WORKSHOP VENUE**

Courtyard Duesseldorf Seestern  
Am Seestern 16  
40547 Düsseldorf  
Phone: +49 211/595 959  
Fax : +49 211/593 569

**TRANSPORT SERVICES CLOSE TO THE HOTEL**

*Parking on-site*  
21 € daily

*Subway Station*  
Seestern or Prinzenallee

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## SPEAKERS' LIST

- *Joep Nijssen, ASML Veldhoven, The Netherlands*
- *Robert Liebich, Technische Universität Berlin, Germany*
- *Federico Colombo, Politecnico di Torino, DIMEAS, Department of Mechanical and Aerospace Engineering, Turin, Italy*
- *Wim Van de Vijver, LAB Motion Systems NV, Leuven, Belgium*
- *Drew Devitt, New Way Air Bearings, Aston, USA*
- *Duc Ha, Omega Dot Ltd., Worcester Park, UK*
- *Jürg Schiffmann, EPFL, Lausanne, Switzerland*
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