

# ISMB17

## August, 18<sup>th</sup>-20<sup>th</sup>, 2021

1. ISMB17 in Numbers
2. What made ISMB17 possible?
3. ISMB17 unfolding activities
4. ISMB Conferences
5. The next step

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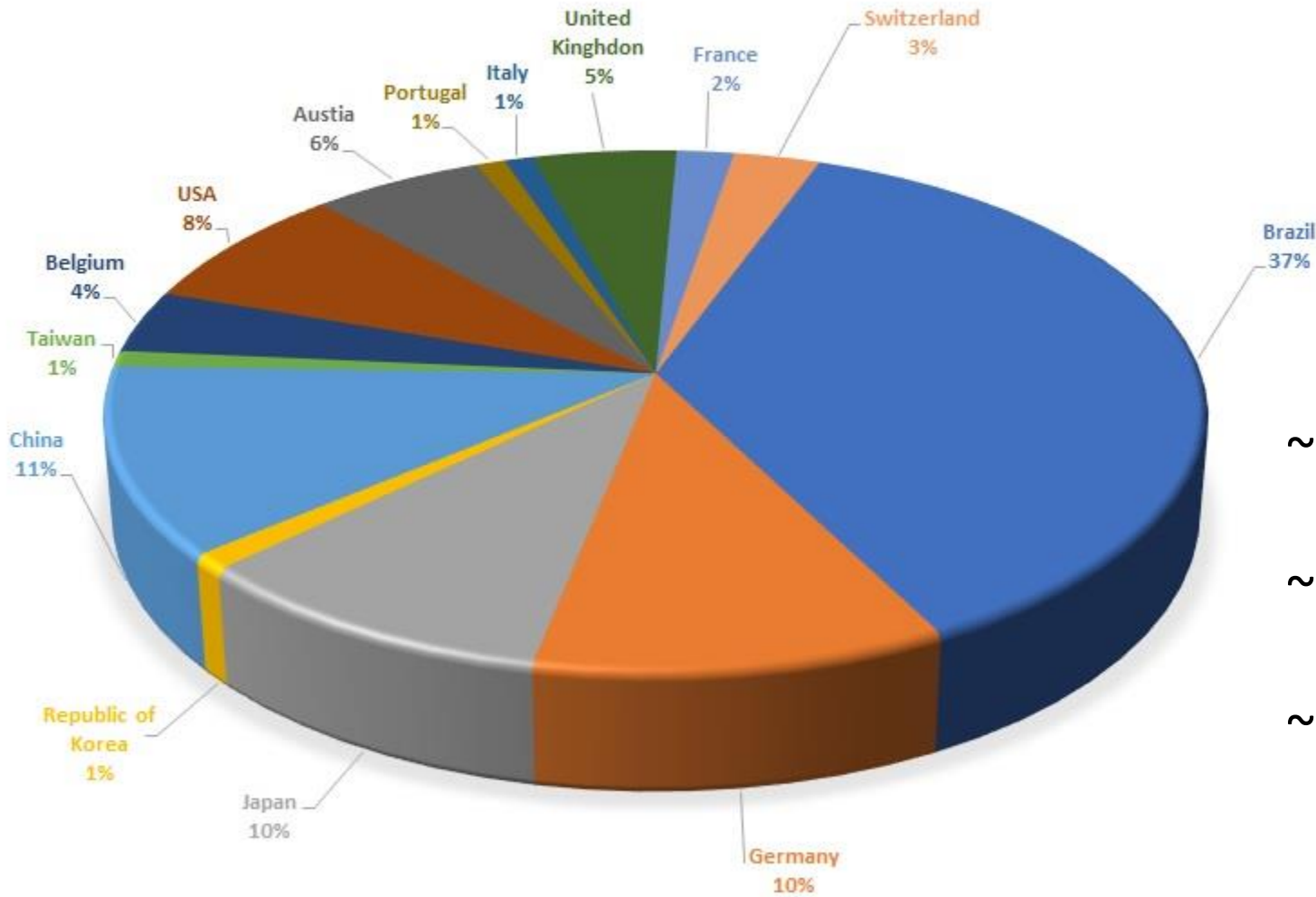
**12 Technical Sessions:** 40 minutes / session - **47 papers**

**5 Plenary Sessions:** 1 hour / session

GMT time	Wednesday - August, 18 <sup>th</sup>		Thursday - August, 19 <sup>th</sup>		Friday - August, 20 <sup>th</sup>	
12:50 PM	OPENING SESSION (10 min)					
01:00 PM	Akira Chiba Chair: Afonso Celso Gomes		Jin Zhou Chair: José Andrés Santisteban		Gerhard Schweitzer Chair: Hans Weber	
02:00 PM	Coffee break (05 min)		Coffee break (05 min)		Coffee break (05 min)	
02:05 PM	Chair: A. Ortiz TS 1	Chair: J. Gonçalves TS 2	Chair: Mancuzu TS 5	Chair: A.Ferreira TS 6	Chair: E. Rodriguez TS 9	Chair: A. Santisteban TS 10
02:45 PM	Coffee break (30 min) Visit to Exposition Hall		Coffee break (30 min) Visit to Exposition Hall		Coffee break (30 min) Visit to Exposition Hall	
03:15 PM	Chair: A. Ortiz TS 3	Chair: J. Gonçalves TS 4	Chair: Mancuzu TS 7	Chair: A.Ferreira TS 8	Chair: E. Rodriguez TS 11	Chair: A. Santisteban TS 12
03:55 PM	Coffee break (05 min)		Coffee break (05 min)		Coffee break (05 min)	
04:00 PM	Paul Allaire Chair: Fernando Castro Pinto		Jarir Mahfoud – Alex Kral Chair: Domingos David		CLOSING SESSION (60 min) Chair: Richard Stephan	

14 Countries

106 Participants



Brazil	40
China	12
Germany	11
Japan	10
USA	8
Austria	6
United Kingdom	5
Belgium	4
Switzerland	3
France	2
Italy	1
Portugal	1
South Korea	1
Taiwan	1

~ 1/2 America

~ 1/4 Europe

~ 1/4 Asia

# ISMB17 in Numbers

ISMB17  
Virtual  $\cong \frac{1}{2}$  (ISMB17 Presential)

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**Dream**





– October, 25 and 26, 2013 –

# 1<sup>st</sup> Brazilian Workshop on Magnetic Bearings

Rio de Janeiro • Brasil



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Richard M. Stephan  
Fernando A. N. Castro Pinto  
Afonso Celso D. N. Gomes  
José A. Santisteban  
Andrés Ortiz Salazar

# Mancais Magnéticos

Mecatrônica  
sem Atrito

**CM** EDITORA  
CIÊNCIA MODERNA

Richard M. Stephan  
Fernando Castro Pinto  
Afonso Celso Del Nero Gomes  
Andrés Santisteban  
Andrés Ortiz

Forewords of:  
Gerhard Schweitzer

Richard M. Stephan  
Fernando A. N. Castro Pinto  
Afonso Celso D. N. Gomes  
José A. Santisteban  
Andrés Ortiz Salazar

# Manuais Magnéticos

Mecatrônica  
sem Atrito

# Magnetic Bearings

Mechatronic  
without friction

**CM** EDITORA  
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Andrés Santisteban  
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Forewords of:  
Gerhard Schweitzer



– October, 25 and 26, 2013 –

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Foto: Fernando Maia



# ISMB

## 17<sup>th</sup> International Symposium on Magnetic Bearings

Rio de Janeiro, August 18-21 ,2021

[www.ismb17.org](http://www.ismb17.org)





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# ISMB17

## 17<sup>th</sup> International Symposium on Magnetic Bearings

Rio de Janeiro, August 18-21, 2021

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#### Technical program co-chair (interdisciplinary issues)

Janaina Gonçalves (UFJF)

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José Andrés Santisteban (UFF)

#### Midia chair

Elkin Rodriguez (COPPE|UFRJ)

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#### Local industry chairs

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Adilson Luiz Manke (EMBRACO)

Mechelangelo Viana Mancuzo (PETROBRAS)

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## Selected Papers from the 17th International Symposium on Magnetic Bearings (ISMB17)

### Guest Editors

Prof. Dr. Richard M. Stephan, Prof. Dr. Afonso Celso Del Nero Gomes, Prof. Dr. José Andrés Santisteban

### Deadline

31 December 2021

# Special Issue

[mdpi.com/si/87769](https://mdpi.com/si/87769)

Invitation to submit

## **Multiphysical Simulation, Model Order Reduction (ECSW) and Experimental Validation of an Active Magnetic Bearing**

Johannes Maierhofer, Christoph Dietz, Oliver M. Zobel and Daniel J. Rixen

## **Simultaneous Identification of Free and Supported Frequency Response Functions of a Rotor in Active Magnetic Bearings**

Michael Kreutz, Johannes Maierhofer, Thomas Thümmel and Daniel J. Rixen

## **Control Strategies for Highly Gyroscopic Outer Rotors with Diametral Enlargement in Active Magnetic Bearings**

Timo Hopf, Michael Richter, Benedikt Schüßler and Stephan Rinderknecht

## **Internal Rotor Actuation and Magnetic Bearings for the Active Control of Rotating Machines**

Gauthier A. Fieux, Nicola Y. Bailey and Patrick S. Keogh

## **Methodology for Shape Optimization of Magnetic Designs: Magnetic Spring Characteristic Tailored to Application Needs**

Branimir Mrak, Bianca Wex and Hubert Mitterhofer

## **Drop-Downs of an Outer Rotor Flywheel in Different Planetary Touch-Down Bearing Designs**

Benedikt Schüßler, Timo Hopf and Stephan Rinderknecht



Linz Center of Mechatronics GmbH

Thanks to Hubert Mitterhofer and colleagues from Linz

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By Year

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2	1990	Tokyo, Japan	T. Higuchi
3	1992	Virginia, USA	P. Allaire
4	1994	Zürich, Switzerland	G. Schweitzer
5	1996	Kanazawa, Japan	F. Matsumura
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Since 1988



2018



2021



2023



ISMB



2023



# Thanks for your attention!

Richard M. Stephan (rms@ufrj.br)

