

Preface for selected papers from ISMB16

In the late 1980s, the research interest in magnetic bearings was growing quickly on an international level. The first International Symposium on Magnetic Bearings (ISMB), allowing the exchange and presentation of ideas and development results was organized in Zurich, Switzerland, in June 1988 by professor Gerhard Schweitzer. The ISMB was bringing together the global key researchers in academia and industry in the field of magnetic bearings, and provided a unique opportunity to meet professional colleagues in the field of magnetic bearing research and applications around the world. Since then, the ISMB was held every two years, and was followed by a series of events held in Tokyo, Japan (1990), Alexandria, USA (1992), Zurich, Switzerland (1994), Kanazawa, Japan (1996), Cambridge, USA (1998), Zurich, Switzerland (2000), Mito, Japan (2002), Lexington, USA (2004), Martigny, Switzerland (2006), Nara, Japan (2008), Wuhan, China (2010), Arlington, USA (2012), Linz, Austria (2014) and Kitakyushu, Japan (2016).

The 16th International Symposium on Magnetic Bearings (ISMB16) took place at Beijing International Convention Center in Beijing, China, from August 13th through 17th, 2018. The primary aim of ISMB16 is to promote scientific and technological exchange among researchers and engineering practitioners around the world. Moreover, the symposium topics of ISMB16 were divided into six parts: design & modeling, passive magnetic bearings (PMBs), applications, control, bearingless motor and backup bearings.

For ISMB16, more than 200 participants, including 78 international attendees from 19 countries and regions, were from Europe, America, Asia and Africa. And 144 digests and 112 full papers were submitted. Among them, 109 contributions were presented within 25 oral sessions, which included 9 design & modeling sessions, 3 PMBs sessions, 4 applications sessions, 5 control sessions, 3 bearingless motor sessions and a backup bearings session. Furthermore, 6 keynote presentations were arranged in the opening plenary session.

All authors of contributions presented at the symposium were invited to submit full paper manuscripts, with the possibility to be published in a journal assigned by editors. Meanwhile, all submitted manuscripts were subjected to standard peer reviewing involving two independent reviewers for each paper. After a thorough review process strictly, 8 papers of the ISMB16 were accepted for this special section of the International Journal of Applied Electromagnetics and Mechanics (IJAEM), which contained many topics discussed during the ISMB16.

We are particularly grateful to the ISMB International Program Committee and International Advisory Committee for their support and confidence during the organization. We would like to thank the local organizing committee for their efforts during the ISMB16 organization and sponsors. Finally, we would like to give special thanks to all the reviewers and chairs for their efforts.

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