

## Special Issue

# Analysis of Electromagnetic, Thermal, and Vibro-Acoustic Behavior in Permanent Magnet (PM) Motors

### Message from the Guest Editors

A comprehensive electromagnetic-thermal-vibroacoustic analysis is critical for modern PM motor design. Electromagnetic forces, especially harmonics, are the primary source of vibration and noise. Thermal effects from losses alter material properties and critical dimensions, impacting both electromagnetic and acoustic performance. The structural response, potentially worsened by resonance, finally determines noise output.

Therefore, this integrated multi-physics approach is indispensable. It enables holistic optimization for superior products that are efficient, powerful, quiet, reliable, and competitive in markets from electric vehicles to industrial systems.

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### Guest Editors

Dr. Jianfeng Hong

Prof. Dr. Junci Cao

Dr. Ya Li

Dr. Chen Wang

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### Deadline for manuscript submissions

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## Machines

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*Machines*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[machines@mdpi.com](mailto:machines@mdpi.com)

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### Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso  
CISE - Electromechatronic Systems Research Centre, University of  
Beira Interior, Calçada Fonte do Lameiro, P-6201-001 Covilhã, Portugal

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