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#### Asynchronous machines

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- A Study on the Multi-Channel TMS Device. Li, J., +, TMAG Nov. 2017 5000805
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Magneto-Thermal Modeling of Biological Tissues: A Step Toward Breast Cancer Detection. *Rahmatinia*, S., +, *TMAG June 2017 5100204* 

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- Low-Dimensional Stochastic Modeling of the Electrical Properties of Biological Tissues. Romer, U., +, TMAG June 2017 7206104
- Nanocrystalline Magnetic Glass-Coated Microwires Using the Effect of Superparamagnetism Are Usable as Temperature Sensors in Biomedical Applications. *Hudak, R.*, +, *TMAG April 2017 5300305*

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#### **Boundary conditions**

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# I

# Identification

- A Novel Vector Hysteresis Model Using Anisotropic Vector Play Model Taking Into Account Rotating Magnetic Fields. *Zhu, L.*, +, *TMAG June* 2017 7300604
- Fast Identification Problems in 3-D Iron Core Fusion Devices. *Chiariello*, A.G., +, *TMAG June 2017 7203204*
- Identification of MISO Systems Using Periodic Inputs and Its Application to Dual-Stage Hard Disk Drives. *Yan, W.*, +, *TMAG March 2017 9400507* Image reconstruction

## image reconstruction

Characterizing a Preclinical Magnetic Particle Imaging System With Separate Pickup Coil. Wells, J., +, TMAG Nov. 2017 5100605

# Image resolution

Effect of Shielding Conductivity on Magnetic Induction Tomographic Security Imagery. Wood, J., +, TMAG April 2017 4000406

## Impact (mechanical)

Design of Voice Coil Motor With the Forward Winding for Linear Vibro-Impact Systems. Luo, C., +, TMAG Aug. 2017 8107509

## Impedance matching

- Magnetic Design Considerations of Bidirectional Inductive Wireless Power Transfer System for EV Applications. *Mohamed, A.A.S.*, +, *TMAG June 2017 8700105*
- UHF RFID Antenna Impedance Characterization: Numerical Simulation of Interconnection Effects on the Antenna Impedance. *Bauernfeind*, T., +, TMAG June 2017 7401204

## Impedance matrix

Computation of Two-Port Parameters in Magnonic Devices Through Circuit-Field Coupling. Rahim, A., +, TMAG April 2017 7100204

Low Frequency Excess Noise Source Investigation of Off-Diagonal GMI-Based Magnetometers. *Dufay, B., +, TMAG Jan. 2017 4000106* 

## Inclusions

- Development of Analytical Approach to Fabricate Composites for Microwave Absorption. *Mishra, V.*, +, *TMAG Aug. 2017 2800710*
- Effect of Temperature and Stress on Residual Magnetic Signals in Ferromagnetic Structural Steel. *Huang, H., +, TMAG Jan. 2017 6200108* dium allows

# Indium alloys

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# Indium compounds

Interface Magnetic and Electrical Properties of CoFeB /InAs Heterostructures. Wu, Z., +, TMAG Jan. 2017 2900104

Modeling for Spin-FET and Design of Spin-FET-Based Logic Gates. Wang, G., +, TMAG Nov. 2017 1600106

# Induced anisotropy (magnetic)

- Control of Domain Structure in Artificial Ni Wires Fabricated on an LiNbO<sub>3</sub> Substrate. Yamaguchi, A., +, TMAG Nov. 2017 8108504
- Determination of Intrinsic and Induced Magnetic Anisotropies in Ni–Zn and Ni–Zn–Co Spinel Ferrites by Using Singular Point Detection Method and Their Comparison With FMR Method. *Mattei, J.*, +, *TMAG Nov.* 2017 2801305

- Influence of the Second-Order Uniaxial Anisotropy on the Dynamical Proprieties of Magnetic Tunnel Junctions. *Perna, S.*, +, *TMAG April 2017* 1400107
- Micromagnetic Simulations of Magnetization Spatial Distribution in Ultrathin Cobalt Layers With Gradient Magnetic Anisotropy. *Kisielewski*, *M.*, +, *TMAG Nov. 2017 2301204*
- Modeling of Hysteresis in Fe–Cu–Nb–Si–B Cores With Transverse  $K_{\rm u}.$  Boust, N., +, TMAG Nov. 2017 7301104
- Soft Magnetic Properties of Thin Nanocrystalline Particles Due to the Interplay of Random and Coherent Anisotropies. *Bachleitner-Hofmann,* A., +, TMAG Nov. 2017 2002806

## Inductance

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- Heat Source Analysis of an Induction Heater for an Electric Vehicle. Yu, S., +, TMAG June 2017 8001104
- Influence of End Effects on Direct- and Quadrature-Axis Inductances in Linear Electromagnetic Actuators. *Boff, B.H.B.*, +, *TMAG Nov. 2017* 8210707
- Parameter Calculation and Analysis of a Novel Wind Power Generator. Yu, S., +, TMAG Nov. 2017 8205607

# Inductance measurement

- Detection of Inner Cracks in Thick Steel Plates Using Unsaturated AC Magnetic Flux Leakage Testing With a Magnetic Resistance Gradiometer. *Tsukada, K.*, +, *TMAG Nov.* 2017 2501305
- Inductance Calculation Method Based on Induced Voltage. Ni, C., +, TMAG June 2017 7204804

# Induction heating

- A 3-D Hybrid Cell Method for Induction Heating Problems. Moro, F., +, TMAG June 2017 7204004
- A Basic Theory of Induction Heating for a Wind-Powered Thermal Energy System. *Matsuo, T.*, +, *TMAG Nov. 2017 8110605*
- A Study on Analytical Methods of FEM-Based Edge Heating System. Jeong, G., +, TMAG Nov. 2017 8401905
- Heat Source Analysis of an Induction Heater for an Electric Vehicle. Yu, S., +, TMAG June 2017 8001104
- Single-Source Multiple-Coil Homogeneous Induction Heating. Han, W., +, TMAG Nov. 2017 7207706
- Synthesis of Cauer-Equivalent Circuit Based on Model Order Reduction Considering Nonlinear Magnetic Property. *Sato, Y.*, +, *TMAG June 2017* 1100204

## Induction motor drives

DNN-Based Predictive Magnetic Flux Reference for Harmonic Compensation Control in Magnetically Unbalanced Induction Motor. *Ghosh, E.*, +, *TMAG Nov. 2017 8210907* 

## Induction motors

- Detection of Inter-Turn Stator Faults in Induction Motors Using Short-Term Averaging of Forward and Backward Rotating Stator Current Phasors for Fast Prognostics. *Dorrell, D.G.*, +, *TMAG Nov. 2017* 1700107
- Domain Decomposition Approach for Efficient Time-Domain Finite-Element Computation of Winding Losses in Electrical Machines. *Lehikoinen, A., +, TMAG May 2017 7400609*
- Inverse Thermal Modeling to Determine Power Losses in Induction Motor. Nair, D.G., +, TMAG June 2017 8103204
- Loss and Air-gap Force Analysis of Cage Induction Motors With Nonskewed Asymmetrical Rotor Bars Based on FEM. *Haisen, Z.*, +, *TMAG June 2017 8103004*
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- Simplified Approach for Predicting the Starting Performance of Induction Machines Based on Rotor Design Modification. *Yun, J.*, +, *TMAG June* 2017 7206604
- Simulation of an Induction Motor's Rotor After Connection. Climente-Alarcon, V., +, TMAG June 2017 8202304
- Stray Load Losses Analysis of Cage Induction Motor Using 3-D Finite-Element Method With External Circuit Coupling. *Cheaytani, J.*, +, *TMAG June 2017 8202104*
- Vector Magnetic Hysteresis Measurement of Nonoriented Electrical Steel Sheets Under Unidirectional Compressive Stress Applied by Piezoelectric Actuators. *Kawano, H., +, TMAG Nov. 2017 8207108*

## Inductive power transmission

- A Novel Multi-Degree Freedom Power Pickup Mechanism for Inductively Coupled Power Transfer System. Dai, X., +, TMAG May 2017 8600107 A Simple Wireless Power Charging Antenna System: Evaluation of Ferrite Sheet. Lee, W., +, TMAG July 2017 2800605
- An Algorithm for Transmitter Optimization in Electromagnetic Tracking Systems. Islam, M.N., +, TMAG Aug. 2017 8002208
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## Information systems

Adaptive Loop Shaping for Wideband Disturbances Attenuation in Precision Information Storage Systems. Sun, L., +, TMAG May 2017 3301813 Infrared heating

Infrared Near-Field Transducer for Heat-Assisted Magnetic Recording. Datta, A., +, TMAG Dec. 2017 3102105

## Infrared imaging

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## Instrument transformers

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## Insulating coatings

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#### Insulating materials

Insulating thin films

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## Insulators

Topoprocessor: An Efficient Computational Topology Toolbox for h-Oriented Eddy Current Formulations. Dlotko, P., +, TMAG June 2017 7204404

#### **Integral equations**

- A Volume Integral Formulation for Solving Eddy Current Problems on Polyhedral Meshes. Bettini, P., +, TMAG June 2017 7204904
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- Scale Human Models. Alotto, P., +, TMAG June 2017 7203504 Modeling of Dense Windings for Resonant Wireless Power Transfer by an
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## Integrated circuit design

Topoprocessor: An Efficient Computational Topology Toolbox for h-Oriented Eddy Current Formulations. Dlotko, P., +, TMAG June 2017 7204404

# Integrated circuit interconnections

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## Integrated circuit modeling

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## Integrated circuit reliability

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# Integrated circuits

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# Integration

An Arbitrary-Order Discontinuous Skeletal Method for Solving Electrostatics on General Polyhedral Meshes. Di Pietro, D.A., +, TMAG June 2017 7402404

## **Intelligent** actuators

Study of Non-Homogeneity of Magnetic Field Distribution in Single-Crystal Ni-Mn-Ga Magnetic Shape Memory Element in Actuators Due to Its Anisotropic Twinned Microstructure. Gabdullin, N., +, TMAG March 2017 4900108

## Intelligent materials

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## Intensity measurement

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## Interactive devices

Interactive Toolbox for the Visualization of Typical Antenna Attributes. Baumgartner, P., +, TMAG June 2017 9401304

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Interface roughness

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Spin Diffusion Length in Ferromagnet/Superconductor Bilayers. Cheng, S.L., +, TMAG Nov. 2017 9000104

Interference (signal)

Twin Iterative Detection for Bit-Patterned Media Recording Systems. Nguyen, C.D., +, TMAG Nov. 2017 8109304

Interference suppression

- EMI Reduction of PMSM Drive Through Matrix Converter Controlled With Wide-Bandgap Switches. Kamruzzaman, M., +, TMAG June 2017 8201804
- Noise Mechanism of TDMR Readers at System Level. Yuan, Z., +, TMAG March 2017 3100804
- Scheme for Utilizing the Soft Feedback Information in Bit-Patterned Media Recording Systems. Nguyen, C.D., +, TMAG March 2017 3101304 Interferometers

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- A Coupling Between the Facet Finite Element and Reluctance Network Methods in 3-D. Nunes, A.S., +, TMAG Oct. 2017 8108310
- Comparison of DEIM and BPIM to Speed Up a POD-Based Nonlinear Magnetostatic Model. Henneron, T., +, TMAG June 2017 7204204
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- Speeding Up Micromagnetic Simulation by Energy Minimization With Interpolation of Magnetostatic Field. *Tanaka, T.*, +, *TMAG June 2017* 7100304
- Structure Preserving Model Reduction of Low-Frequency Electromagnetic Problem Based on POD and DEIM. *Montier, L.*, +, *TMAG June 2017* 7205204

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- Characterization of Permanent Magnet Magnetization. Arbenz, L., +, TMAG Nov. 2017 8109504
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- Error Analysis for Near-Field EMC Problems Based on Multipolar Expansion Approach. Li, Z., +, TMAG June 2017 8001304
- Modeling of Leakage Magnetic Field of Electric Machines Using Blocks With Magnetizations for Design of Magnetically Shielded Room. *Muramatsu, K.*, +, *TMAG June 2017 8000904*
- Vector Hysteresis Model Associated to FEM in a Hysteresis Motor Modeling. Padilha, J.B., +, TMAG June 2017 7402004

## Inverters

- Attenuation of Stray Magnetic Field in Inductive Power Transfer by Controlling Phases of Windings' Currents. Lu, M., +, TMAG Sept. 2017 8700408
- Fast Nonlinear Magnetic Field Analysis of Inverter-Driven Machines by Applying POD on Linearized Coefficient Matrices. *Ebrahimi, H.*, +, *TMAG June 2017 7204604*
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#### Ion beams

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## Permanent magnet machines

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## Polynomials

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- Efficient Wireless Power Charging of Electric Vehicle by Modifying the Magnetic Characteristics of the Transmitting Medium. Mahmud, M.H., +, TMAG June 2017 9100205
- EMI Reduction of PMSM Drive Through Matrix Converter Controlled With Wide-Bandgap Switches. Kamruzzaman, M., +, TMAG June 2017 8201804

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- Efficient Wireless Power Charging of Electric Vehicle by Modifying the Magnetic Characteristics of the Transmitting Medium. Mahmud, M.H., +, TMAG June 2017 9100205
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- Functionalization of Iron Oxide Nanoparticles With HSA Protein for Thermal Therapy. *Mazario*, E., +, *TMAG Nov. 2017 5200305*
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## Proximity effect (superconductivity)

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## **PWM** inverters

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