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<b>Session Title</b>	<b>[PB-M3] Material Modelling 1</b>
<b>Date and Time</b>	<b>June 20 (Tuesday) / 11:00-12:50</b>
<b>Place</b>	<b>Rm. 103 (1F)</b>
<b>Session Chair</b>	<b>Joao Pedro Assumpcao Bastos (Univ. Federal de Santa catarina, Brazil)</b>

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**PB-M3-1** **Digest ID: 784**

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**Equivalent Complex Permeability for Soft Magnetic Composites Application to Transformer**

REN, Xiaotao (1); Corcolle, Romain (1,2); Daniel, Laurent (1)  
1: Group of electrical engineering-Paris; 2: NYU Shanghai

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**PB-M3-2** **Digest ID: 78**

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**Model of Magnetostriction and Magnetization for Galfenol Rods with Considering the Effects of Anisotropy and Dynamic Losses**

Li, Yafang; Huang, Wenmei; Wang, Bowen; Zhao, Ran  
Key Laboratory of Electro-Magnetic Field and Electrical Apparatus Reliability of Hebei Province, Hebei University of Technology, Tianjin 300130, China

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**PB-M3-3** **Digest ID: 110**

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**Benchmark on the 3D Numerical Modeling of a Superconducting Bulk**

Berger, Kevin (1); Escamez, Guillaume (2); Quéval, Loic (3); Kameni, Abelin (3); Alloui, Lofti (3,4); Ramdane, Brahim (2); Trillaud, Frédéric (5); Makong Hell, Ludovic (3,6); Meunier, Gérard (2); Masson, Philippe (6); Lévêque, Jean (1)  
1: GREEN, Université de Lorraine, 54506 Vandoeuvre-lès-Nancy, France; 2: University Grenoble Alpes / CNRS, G2Elab, 38042 Grenoble, France; 3: Group of electrical engineering - Paris (GeePs), CNRS UMR 8507, CentraleSupélec, UPSud, UPMC, Gif-sur-Yvette, Fra

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**PB-M3-4** **Digest ID: 217**

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**Magnetic lump model for the hysteresis frequency dependence of a polymer matrix.**

Gupta, Bhaawan (1,2); Ducharne, Benjamin (1); Sebald, Gael (1,2); Uchimoto, Tetsuya (2)  
1: LGEF, INSA LYON, FRANCE; 2: ELYTMAX, TOHOKU UNIVERSITY JAPAN

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**PB-M3-5** **Digest ID: 314**

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**Modeling and Validation of Magnetic Anisotropy Model Based on Energy for Silicon Steel Goss Structure**

Zhang, Changgeng (1); Li, Yongjian (1); Yang, Qingxin (2); Zhu, Jianguo (3)  
1: Hebei University of Technology; 2: Tianjin Polytechnic University; 3: University of Technology Sydney

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**PB-M3-6**

**Digest ID: 659**

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**A Two-dimensional Elemental Operator for Vectorial Hysteresis Model of Magnetic Material**

Xu, Weijie (1); Duan, Nana (1); Li, Yongjian (2); Wang, Shuhong (1); Guo, Youguang (3); Zhu, Jianguo (3)  
1: Xi'an Jiaotong University, China, People's Republic of; 2: Hebei University of Technology, China, People's Republic of; 3: University of Technology Sydney, Australia

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**PB-M3-7**

**Digest ID: 450**

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**Ladder Circuit Modeling of Dynamic Hysteretic Property Representing Excess Eddy-Current Loss**

Suehiro, Itsuki (1); Mifune, Takeshi (1); Matsuo, Tetsuji (1); Kitao, Junji (2); Komatsu, Taiga (2); Nakano, Masatsugu (2)  
1: Graduate School of Engineering, Kyoto University; 2: Mitsubishi Electric Corporation

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**PB-M3-8**

**Digest ID: 423**

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**Analysis of Iron Loss Distributions on the Metallic Support in Underground Power Cables**

Song, Hye Eun; Im, Sang Hyeon; Park, Gwan Soo  
Pusan National University, Korea, Republic of (South Korea)

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**PB-M3-9**

**Digest ID: 775**

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**Uniform Formulation for Newton-Raphson Method and Fixed-Point Method in Finite Element Analysis with a Vector Hysteresis Model**

Li, Wei (1); Fu, Weinong (2); Koh, Chang-Seop (3)  
1: Tongji University, China; 2: The Hong Kong Polytechnic University, China; 3: Chungbuk National University, Korea, Republic of (South Korea)

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**PB-M3-10**

**Digest ID: 521**

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**An Efficient Identification and Implementation of Preisach-Stoner-Wohlfarth Vector Hysteresis Model**

Liu, Lei; Fu, W.N.  
The Hong Kong Polytechnic University, Hong Kong S.A.R. (China)

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**PB-M3-11**

**Digest ID: 750**

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**Comprehensive Improvement of Temperature Dependent Jiles-Atherton Model Utilizing Variable Parameter Set**

Zhang, Dianhai (1); Jia, Mengfan (1); Ren, Ziyang (1); Zhang, Yanli (1); Koh, Chang-Seop (2)  
1: Shenyang University of Technology, China; 2: Chungbuk National University, Korea, Republic of (South Korea)