

IEEE TRANSACTIONS ON **MAGNETICS**

A PUBLICATION OF THE IEEE MAGNETICS SOCIETY

FEBRUARY 2016 VOLUME 52 NUMBER 2 IEMGAQ (ISSN 0018-9464)

PART I OF TWO PARTS



SELECTED PAPERS FROM THE XXVI MAGNETIC RECORDING CONFERENCE (TMRC 2015)
Minneapolis, Minnesota, August 17–19 2015

IEEE TRANSACTIONS ON MAGNETICS

A PUBLICATION OF THE IEEE MAGNETICS SOCIETY

FEBRUARY 2016 VOLUME 52 NUMBER 2 IEMGAQ (ISSN 0018-9464)

PART I OF TWO PARTS

SELECTED PAPERS FROM THE XXVI MAGNETIC RECORDING CONFERENCE (TMRC 2015)

Minneapolis, Minnesota, August 17–19 2015

0300101 **The XXVI Magnetic Recording Conference 2015 Foreword**

S. N. Piramanayagam and J. van Ek

0300201 **TMRC 2015 Conference Organization**

PAPERS

Low Dimensional Systems

1100105 **Optical and Thermal Behaviors of Plasmonic Bowtie Aperture and Its NSOM Characterization for Heat-Assisted Magnetic Recording**

X. Xu, N. Zhou, Y. Li, and L. Traverso

Recording Physics and Modeling

3000108 **Optimizing Modeled ECC Media Structures for MAMR**

T. Olson, B. Lengsfeld, G. J. Parker, M. Shiimoto, M. Sugiyama, and L. Xu

3000210 **Relaxing Media Requirements by Using Multi-Island Two-Dimensional Magnetic Recording on Bit-Patterned Media**

Y. Wang, B. V. K. V. Kumar, M. F. Erden, and P. L. Steiner

3000307 **Novel Mach-Zehnder Interferometer Waveguide Design as a Light Delivery System for Heat-Assisted Magnetic Recording**

J. Gosciniak, M. Mooney, M. Gubbinsi, and B. Corbett

3000407 **TMR Sensitive Equalization for Electronic Servoing in Array-Reader-Based Hard Disk Drives**

Y. Zheng, G. Mathew, T. Oenning, R. Rauschmayer, B. Wilson, and W. Hanson

3000507 **Efficient Integrated Light-Delivery System Design for HAMR: Maximal Optical Coupling for Transducer and Nanowaveguide**

V. Krishnamurthy, D. K. T. Ng, K. P. Lim, and Q. Wang

3000606 **Writer and Reader Head-to-Media Spacing Sensitivity Assessment in HAMR**

C. Rea, M. Benakli, P. Subedi, R. Mendonsa, S. Kalarickal, J. Kiely, W. Chen, H. Zhou, S. Hernandez, Y. Peng, J.-U. Thiele, A. Q. Wu, G. Ju, T. Rauch, K. Gao, M. Seigler, and E. Gage

Recording Mechanisms and Technologies

3100207 **Microwave-Assisted Magnetization Reversal in Exchange-Coupled Composite Media Using Linearly Polarized Microwave Fields**

Y. Nozaki and S. Kasai

- 3100307 **Radius and Skew Effects in an HAMR Hard Disk Drive**
M. A. Cordle, D. M. Mader, S. D. Granz, A. S. Chu, P.-L. Lu, F. Martens, Y. Qi, T. Rausch,
J. W. Riddering, and K. Gao
- 3100404 **Characterizing Advanced Recording Technology Assets With Hyperscale Applications**
Y. Tanaka
- 3100507 **Optimization of Bit Geometry and Multi-Reader Geometry for Two-Dimensional Magnetic Recording**
J. R. Barry, B. Vasić, M. Khatami, M. Bahrami, Y. Nakamura, Y. Okamoto, and Y. Kanai
- Media Including Advanced, Heat-Assisted, Microwave-Assisted and Perpendicular*
- 3200108 **Structure Optimization of FePt–C Nanogranular Films for Heat-Assisted Magnetic Recording Media**
H. Pandey, J. Wang, T. Shiroyama, B. S. D. Ch. S. Varaprasad, H. Sepehri-Amin, Y. K. Takahashi,
A. Perumal, and K. Hono
- 3200204 **Characterization of the Magnetic Properties of HAMR Media Using the Temperature Dependence of the AC Susceptibility**
M. Chapline, C. Papusoi, A. Ajan, P. Dorsey, M. Desai, and R. Acharya
- 3200306 **FePt-Based HAMR Media With a Function Layer for Better Thermal Control**
J. Hu, K. M. Cher, B. Varghese, B. Xu, C. Lim, J. Shi, Y. Chen, K. Ye, J. Zhang, C. An, and W. Tsai
- Heads, Head-Disk Interfaces, Lubes and Tribology*
- 3300406 **Characterization of Laser-Induced Protrusion in HAMR by the Burnish Method**
Z. Zhang, K. Liu, E. X. Jin, M. M. Dovek, J. D. Kiely, O. Nakada, P. K. Wong, V. M. F. Chiah, and
X. M. Liu
- 3300504 **Nanoscale Thermal Mapping of HAMR Heads Using Polymer Imprint Thermal Mapping**
A. A. Kinkhabwala, M. Staffaroni, Ö. Süzer, S. Burgos, and B. Stipe
- Other Topics*
- 9400107 **Dynamic Grain State Estimation for High-Density TDMR: Progress and Future Directions**
X. Sun, B. J. Belzer, and K. Sivakumar
- 9400207 **Comparison of Two-Reader and Three-Reader 2-D Magnetic Recording Systems**
N. Varnica, R. Radhakrishnan, S. K. Chilappagari, M. Khatami, and M. Öberg
-
- 9500602 **CONFERENCE AUTHOR INDEX**
-