

MORIS2006ws

Technical Program

Tuesday, June 6, 2006

Opening

Opening Remarks

Masahiko Kaneko

Session: HAMR (I)

TuA-01 Integration Challenges for Heat Assisted Magnetic Recording Data Storage

Edward C. Gage, C.Peng, T.Rausch, W.Challener, B.Mihalcea, M.Seigler, K.Pelhos, T.McDaniel

TuA-02 Side Track Erasure and Wide Magnetic Pole HAMR Write Heads

James A Bain

TuA-03 Near-Field Optical Probe with a Beaked Metallic Plate for Thermally Assisted Magnetic Recording

Takuya. Matsumoto, Y.Anzai, T.Shintani, K.Nakamura, F.Akagi and T.Nishida

TuA-04 Interface Thermal Issue Study in Heat Assisted Magnetic Recording

Baoxi Xu, H.X.Yuan, Q.D.Zhang, J.Xhang, T.Ji, and T.C.Chong

Session: Magneto-Photonic Crystal

TuP-01 Band Edge Effects and Normal Mode Propagation in Wave guide Magnetophotonic Crystals

Miguel Levy, R.Li, A.A.Jalali, and X.Huang

TuP-02 Nonlinear Magneto-Optics in Garnet Magnetophotonic Crystals

Oleg Aktsipetrov, M. Inoue, V.G. Golubev, T.V. Murzina, A.A. Fedyanin, H. Uchida, D.A.Kurdyukov

TuP-03 Wavelength-Scale Non-Reciprocal Devices in Two-Dimensional Magneto-Optical Photonic Crystals

Shanhui Fan, Zheng Wang

TuP-04 Frozen Modes and Resonance Phenomena in Magnetic Photonic Crystals

Alexander Figotin and I.Vitebskiy

TuP-05 Thin Ferromagnetic Film-Based Two-Dimensional Magnonic Crystals

Sergei A. Nikitov, Y.V.Gulyaev, Y.A.Filimonov

Wednesday, June 7, 2006

Session: Heat Assisted MRAM

WeA-01 Heating Regimes of Thermally Assisted Magnetic Memories

Ricardo Sousa, I.L.Prejbeanu, O.Redon, A.Astier, H.Sibuet, B.Dieny

WeA-02 Spin Torque Driven Perpendicular MRAM Design for Overcoming Thermal Magnetic Limit
Jian-Gang (Jimmy) Zhu

Session: Imaging

WeA-03 Magneto-Optical Imaging on Coated Conductors

Takato Machi, N.Chikumoto, K.Nakao

WeA-04 Magneto-Optical Observation of Vortices in Superconductors

Tom H. Johansen, J.I.Vestgarden, A.A.F.Olsen, D.V.Shantsev, P.E.Goa and Y.M.Galperin

Session: Fast Reversal

WeP-01 Ultrafast Photomagnetic Switching and Coherent Optical Control of Magnetization

Fredrik Hansteen, A.Kimel, A.Kiryuk and T.Rasing

WeP-02 Picosecond Time Resolved Study on Magnetic Vortex Dynamics

Sug-Bong Choe, Yves Acremann, Andreas Bauer, Andrew Doran, Andreas Scholl

Session: MO Effect

WeP-04 Magneto-Optic Spatial Light Modulators and Their Use in Collinear Holography

M. Inoue, P. B. Lim, H. Takagi, T. Imura, K. Iwasaki, T. Yamanaka, H. Umezawa and H. Horimai

WeP-05 Magneto-Optical Spectroscopic Scatterometry for Analyzing Patterned Magnetic Nanostructures

Roman Antos, J. Mistrik, T. Yamaguchi, M. Veis, E. Liskova, S. Visnovsky, J. Pistora, B. Hillebrands, S.O. Demokritov, T. Kimura, and Y. Otani

Session: Poster

Session 1: Hybrid Recording and High Anisotropy Recording Materials

WeX-01 Double Layered Electrode for Plasmon Antenna

Satoshi Kudoh, J.Kim, K.Nakagawa, and A.Itoh

WeX-02 Thermally Assisted Magnetic Recording Using a High NA Optical Head

Takuya Kamimura, T.Morikawa, S.Shimokawa, S.Hamaguchi and K.Matsumoto

WeX-03 Fundamental Experiment for Near-Field Optics with Transparent Slider in Hybrid Recording

Nobuyuki Mori, J.Kim, K.Nakagawa and A.Itoh

WeX-04 LLG Simulations of TbFeCo/FeNiPt CGC-Like Film

Masataka Motohashi, F.Chino, A.Itoh and A.Tsukamoto

WeX-05 Comatic Aberration in a Solid Immersion Mirror

Rrian R Knight, A.V.Itagi, T.Rausch, C.Mihalces, K.Pelhos, T.E.Schlesinger

WeX-06 Improved Patterned Media for Probe-Based HAMR

E. Algré, G. Gaudin, A. Bsiesy, J. P. Nozières

WeX-07 Heat Assisted Recording using Electron Beams

Simon John Greaves and H.Muraoka

WeX-08 Magnetic Properties of L10 Fe-Ni-Pt Films for Heat Assisted Magnetic Recording

Masahiko Kaneko, K.Sueki, Y.Kitamoto

WeX-09 Rial to Deposit (001) Oriented FePt Thin Films in As-Deposited State Using Fe/Pt Bilayered Structure

J.Ikemoto, T.Kitagawa, T.Kamiki and S.Nakagawa

WeX-10 Simulation of Thermomagnetic Recording Process for High Density Magnetic Field Modulation Method

Noritaka Taniguchi, K.Kato, S.Tsunashima, and S.Iwata

WeX-11 Microstructure and Temperature Characteristics of SmCoCu/Co Thin Films with High Coercivity Using Radio Frequency Magnetron Sputtering

Huanfu Cai, Hong Zhang and Zuoyi Li

WeX-12 Studies of The Magnetic Domains of FePd Films with or without Si-Antidots Templates

Chin-Chung Yu, Y.D.Yao, Y.Liou

WeX-13 FeCuPt Grains Fabricated on SiO₂ Substrates Having Self-Organized Nano-Pores

Akiyoshi Itoh, H.Sato, Y.Adachi, A.Tsukamoto

Session 2: Thermally Assisted MRAM and Spin Dynamics

WeY-01 Numerical Analysis of Thermally Assisted Magnetization Reversal in Rectangular MRAM Cells

Yukio Nozaki, Y.Isowaki, A.Hashimoto, B.Purnama, K.Matsuyama

WeY-02 Thermal Stability of MRAM with Propeller Shape

Tadashi Kai, T.Nagase, M.Yoshikawa, T.Kishi, S.Ikegawa, and H.Yoda

WeY-03 Magnetization Reversal in Perpendicularly Magnetized FePt Layers by Spin-Polarized Current

Takeshi Seki, S.Mitani, K. Yakushiji, K. Takanashi

WeY-04 Ultrafast Laser Induced Spin Dynamics in Ferrimagnetic GdFeCo Films

Claudiu Daniel Stanciu, A.V.Kimel, F.Hansteen, A.Tsukamoto, A.Itoh, A.Kirilyuk, and Th.Rasing

Session 3: Magnetophotonic Crystals and Magneto-optical Effect

WeZ-01 Fabrication of Magnetophotonic Crystals with Infiltrated Magnetic Garnet Material into Opal Film

Rintaro Fujikawa, A.V.Baryshev, A.B.Khanikaev, H.Uchida, P.B.Lim, and M.Inoue,

WeZ-02 Enhancement of Magneto-optic Responce by Surface State (Tamm) Resonance in 1D Magneto Photonic Crystal

Alexander M Merzlikin, A.V.Dorofenko, S.G.Erokhin, M.Inoue, A.A.Lisyansky, A.P.Vinogradov, and A.B.Granovsky

WeZ-03 Faraday Effect in Three-Dimensional Magnetophotonic Crystals

Alexander Khanikaev, A.Baryshev, R.Fujikawa, P.B.Lim, M.Inoue, A.B.Granovsky

WeZ-04 Intensity Effects in Longitudinal NOMOKE in Magnetophotonic Crystals

Andrey A. Fedyanin, O.A.Aktsipetrov, K.Tanizaki, P.B.Lim, H.Uchida, and M.Inoue

- WeZ-05 One-Dimensional Magnetophotonic Crystal Having Higher Order Photonic Band Gap
Kazuhiro Tanizaki, A.B.Khanikaev, A.A.Fedyanin, P.B.Lim, K.H.Shin, H.Uchida, M.Inoue
- WeZ-06 Real Time Magneto-Optical Imaging using Liquid Crystal Modulator
Takayuki Ishibashi, S.Yufune, T.Kawata, M.Oda, T.Tani, Y.Iimura, Y.Konishi, K.Akahane and K.Sato
- WeZ-07 Pulsed Laser Deposition and Growth Studies of $\text{Bi}_3\text{Fe}_5\text{O}_{12}$ on $\text{Gd}_3\text{Ga}_5\text{O}_{12}$ and SiO_2
Andreas Heinrich, S.Leitenmeier, T.Korner, R.Lux, M.Herbort and B.Stritzker
- WeZ-08 Deposition of Thick Magnetic Garnet Film with Aerosol Deposition Method for Optical Isolator
Masahiko Mizoguchi, K.H.Shin, P.B.Lim, and M.Inoue
- WeZ-09 Holographic Recording with Magnetic Garnet Films
Kenji Okamoto, P.B.Lim and M.Inoue
- WeZ-10 LPE Growth of Bismuth Substituted Iron Garnet Films with In-Plane Magnetization
Takeshi Kono, N.Kawamae, T.Machi, N.Chikumoto, K.Nakao, N.Koshizuka, N.Adachi, T.Okuda
- WeZ-11 Multiferroic Magneto-Optic Spatial Light Modulators with PZT Sputtered Films
Hiroyuki Takagi, A. Tsuzuki, K. Iwasaki, Y. Suzuki, T. Imura, H. Umezawa and M. Inoue
- WeZ-12 Fabrication and Characteristics of Analog Magneto-Optic Spatial Light Modulators
Atsushi Tsuzuki, H.Takagi, H.Uchida, P.B.Lim and M.Inoue
- WeZ-13 Magneto-Optic Spatial Light Modulators with One Dimensional Magnetophotonic Crystals
Kazuyoshi Takahashi, H. Takagi, A. Tsuzuki, H. Uchida, P. B. Lim and M. Inoue
- WeZ-14 Shrinkage Control of Nano-Gel Structured Photo Polymer for Holographic Recording System
Nobuya Morishata, R.Arai, C.Katahira, J.Ikeda, Y.Takatani, Y.Tanaka, P.B.Lim, and M.Inoue
- WeZ-15 Transmission-Type Collinear Holography with Magneto-Optic Spatial Light Modulators
Hironobu Koga, T.Imura, K.Iwasaki, T.Yamanaka, P.B.Lim, H.Umezawa, and M.Inoue
- WeZ-16 Characterization of Local Critical Current Density in High-Tc Superconductors Using
Magneto-Optical Imaging Technique
Noriko Chikumoto, M.Oishi, J.Kato

Thursday, June 8, 2006

Session: Poster (continued)

Session: Spintronics/Semiconductor

- ThA-01 Spin Transfer Torque Induced Switching in Magnetic Tunnel Junction and Thermal Effect in
Nanosecond Regime
Zhitao Diao, D.Apalkov, Y.Ding, A.Panchula, S.Wang, L.C.Wang and Yiming Huai
- ThA-02 Monolithically Integrable Semiconductor Active Waveguide Optical Isolators
Hiromasa Shimizu
- ThA-03 Imaging the Injection, Accumulation, and Flow Of Spin-Polarized Electrons in Lateral
Ferromagnet/Semiconductor Structures
Madalina Ioana Furis

Session: HAMR (II)

ThP-01 Novel Materials and Media Concepts for Thermally Assisted Magnetic Recording

Jan-Ulrich Thiele, B.C.Stipe, G.Meyer, C.Poon, and B.D.Terris

ThP-02 L1₀-FePt Nanoparticles Synthesized via “SiO₂-Nanoreactor” Method

Y.Morimoto, Y.Tamada, S.Yamamoto, M.Takano, T.Ono

ThP-03 Development of SmCo₅ Perpendicular Magnetization Films for Storage Media

Toru Asahi, J.Sayama, t.Osaka

Closing

Closing Remarks

Katsuji Nakagawa