IcAUMS 2025

The 7th International Conference of Asian Union of Magnetics Societies

April 21-24, 2025 / Okinawa, Japan

The 7th International Conference of Asian Union of Magnetics Societies （IcAUMS2025）

Date April 21-24 (Mon.-Thu.), 2025

Venue Okinawa Convention Center, Okinawa, Japan

Registration Desk

First Floor Lobby, Conference Building A,

Conference Headquarter

Theater Building, Conference Room C

E-mail: msj@bj.wakwak.com

Plenary talk

April 21 (Mon.), 2025, 13:30-14:30

"Invention of Nd-Fe-B sintered magnet and development of basic research"

Masato Sagawa (Daido Steel Co., Ltd.)

"Asian Magnetics Initiative"

Kyung Ho Shin (Daegu Gyeongbuk Institute of Science & Technology)

April 23 (Wed.), 2025, 13:30-14:30

"Magnetic Tunnel Junctions and Josephson junctions formed from 2D van der Waals layers"

Stuart Parkin (Max Planck Institute)

"Using skyrmions for AI and using AI for skyrmion research"

Mathias Kläui (Johannes Gutenberg University Mainz)

AUMS Awardees (Plenary speakers)

"STT-MRAM: From Technology Breakthroughs to Products and Applications"

Yiming Huai (Avalanche Technology Inc.)

"X-spintronics"

Teruo Ono (Kyoto University)

AUMS Young Researcher Awardees (Invited speakers)

"Exploring Anomalous Hall Effect in Rare-Earth Transition-Metal (RE-TM) Ferrimagnets for Spintronics Applications"

Ramesh Chandra Bhatt (National Yunlin University of Science and Technology)

"Emergence of Giant Magnetic Chirality during Dimensionality Crossover of Magnetic Materials"

Duck-Ho Kim (Korea Institute of Science and Technology)

"Handedness manipulation and electrical readout of propagating antiferromagnetic magnons"

Yoichi Shiota (Kyoto University)

"Deep supercooling solidification for high-performance soft magnetic alloys"
Chen Wu (Zhejiang University)

Banquet

April 22 (Tue.), 2025, 18:00-20:00
LAGUNA GARDEN HOTEL OKINAWA
(4-1-1 Mashiki, Ginowan-shi, Okinawa 901-2224 Japan)

Organizing Committee

Honorary Chair: Young Keun Kim (AUMS President, KMS Honorary President, Korea University)
General Chair: Yasushi Takemura (MSJ President, Yokohama National University)
Conference Chair: Hideto Yanagihara (University of Tsukuba)
Program Co-Chairs: Masaki Mizuguchi (Nagoya University),
Yasuyuki Okada (Mitsubishi Electric Corporation)
General Co-Secretaries: Hiromi Yuasa (Kyushu University), Hiroaki Kikuchi (Iwate University)
Treasurer: Akinobu Yamaguchi (Toyo University)
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Publicity Co-Chairs: Koichi Kakizaki (Saitama University), Yukio Nozaki (Keio University)
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Teruo Ono (MSJ VP, Kyoto University)
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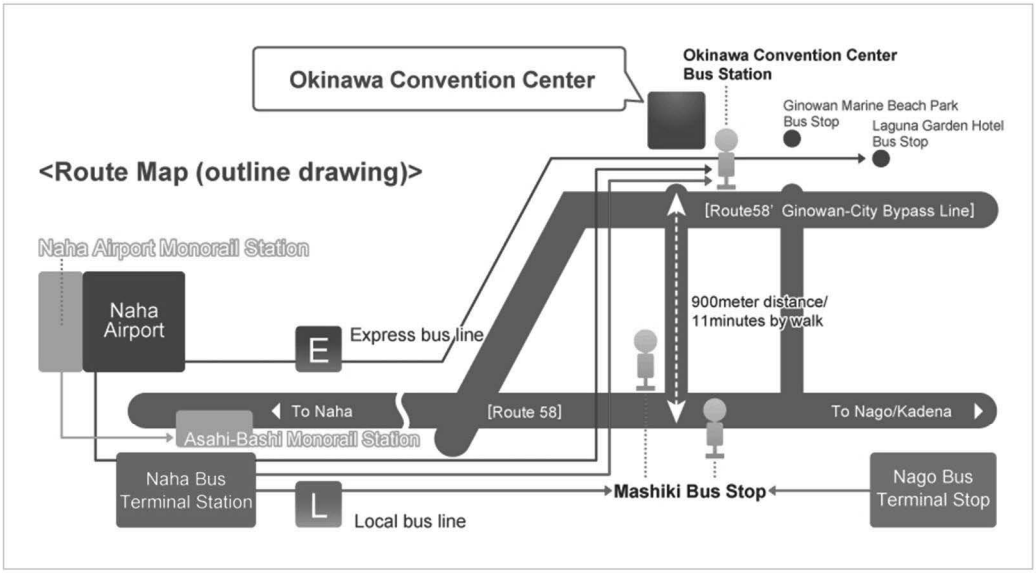
Conference Secretariat: Akira Kikitsu (MSJ VP, Toshiba), Yasuyoshi Miyamoto (NHK),
Toyokazu Yamada (Chiba Univ.), Hiroyasu Nakayama (AIST),
Yota Takamura (Science Tokyo)

Access to Okinawa Convention Center

Bus/Monorail



Route number is indicated on the front display of each route bus. Please pick the appropriate route number.

Access form Naha Bus Terminal Station.

To the Okinawa Convention Center Bus Stop.
– Route Number:No.26・No.43・No.32・No.55(takes from 40 minute to 60 minutes) Fare: \¥530
Route Number:No.112(takes 50 minute)・No.99 (takes 60 minute)

L To the Mashiki Bus Stop
- Route Number: No.20・No.77・No.120 (takes from 45 minute via Kokusai Street) Fare: \¥530
Route Number:No.23・No.29・No.63(takes from 35 minute via Kumoji Street) Fare: \¥530
Route Number:No.31 (takes from 50 minute via Kumoji Street) Fare: ¥530

Access from Naha International Air Port

50-70 minutes from Naha International Air Port (Bus Station No 3) to Okinawa Convention Center Bus Stop. Fare:\¥570
Route Number: No.26 (50 minutes)
Route Number:No.99(70 minutes)

E Airport Limousine Bus is easy accessible
***Additional note: This limousine liner is not to stop at the convention center, get off at Laguna Garden Hotel bus stop and walk to the center for 10 minutes.(takes from 55 minute) Fare: ¥600**

Access by the monorail(Asahibasi station and Furushima Station are easy accessible) – See the route map and operation time table.
・About 11 minutes from the airport to Asahibashi station. Fare:\260. From Asahibashi station to the bus terminal station takes 3 minutes by walk.
・About 21 minutes from the airport to Furushima station. Fare:\320. From Furushima station to the convention center takes 15 minutes by taxy.

Access form Nago Bus Terminal Station

About 120 minutes from Nago Bus Terminal Station to Mashiki bus stop. Fare:\¥1,650 Route: No.20andNo.120

* Additional note: 1. The required time is defer according to the traffic situation.2. The operation of bus liner on Saturday, Sunday and public holidays are run in less number than on week days.

with your own vehicle/rental car

- Takes about 40 minute (14 km distance) from Naha Airport.
- Takes about 30 minute (10 km distance) from the center of Naha city.
- Takes about 90 minute (56 km distance) from the center of Nago city.

Required time may differ according to the traffic situation.

Information

Okinawa Rental Car Association TEL : 098-852-0725

Remainder for driving by a rental car

Some area have exclusive bus lanes, and they are not allowed for regular vehicle at morning and evening time on week days (These traffic restriction are not enforced on Saturday, Sunday and public holidays)

› The road where bus lane regulation is enforced (Okinawa Prefectural Police Department HP)

Direction from Okinawa Expressway (Exit from Nishihara IC takes 15 minute)

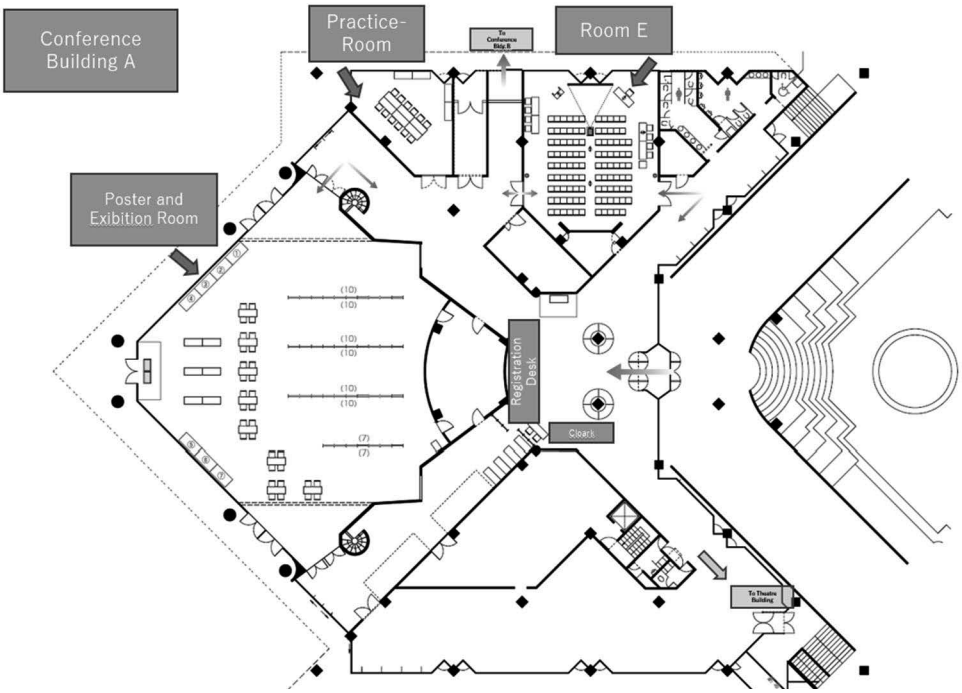
As you exit from the IC(Expy Gate 2), turn left and go straight for 500 meter on Route 330. Enter into left lane and go straight to Makiminat and traverse Route 58 then precede bypass. You can view the sea at left side. The main entrance is located adjacent to the yacht harbor of roadside.

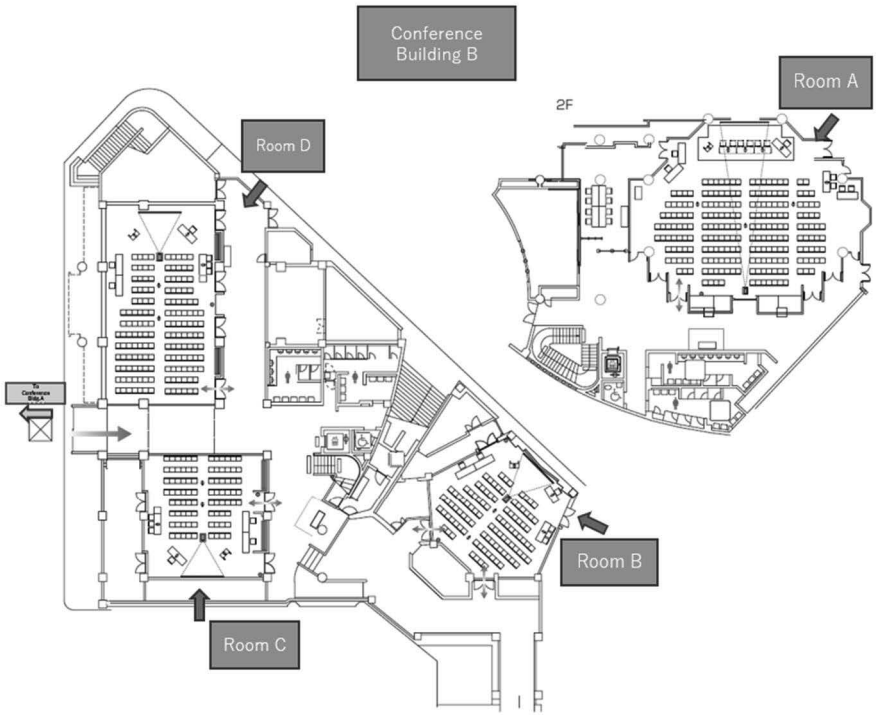
View Larger Map (Google Maps) »

Parking Information

The on-site free vehicle parking of the center is available, however, due to the space limited;please use the toll parking of Ginowan city municipal marina adjacent to the center at prim time of the event schedule. (par vehicle \300 daily)

Floor Map


Conference Building A
Practice-Room
Room E
Poster and Exibition Room
Registration Desk
Cloark
To Theatre Building


Conference Building B
Room A
2F
Room D
Room B
Room C

Registration Fees:

	MSJ Regular Member	MSJ Corporate Member	MSJ Student Member	Regular (Non-member)	Student (Non-member)
Advance Registration	¥70,000	¥70,000	¥30,000	¥77,000	¥33,000
On Site Registration	¥100,000	¥100,000	¥50,000	¥110,000	¥55,000
Banquet	-	-	¥5,000	-	¥5,000

Instructions for presentation:

1. Oral presentation

Only LCD projectors will be provided. Authors are expected to bring their presentation on their own laptop computers along with a backup copy on a USB Drive in case of laptop failure.

- LCD projectors accept HDMI input only.
- It is important to stop at the Practice-Room before your scheduled presentation day and time to assure your presentation operates successfully in the onsite environment.
- The time allocated for the oral presentation speakers is including 4 minutes for discussion. The first bell will ring 3 min. before the finishing of your talk. The second bell will notice you the time to finish the talk. Please conclude your talk immediately, when the second bell has been rung.

	General presentation	Symposium / Invited presentation
time	10 min. talk + 4 min. discussion	30 min. (including 4 min. discussion)
1st bell	7 min.	3 min. before the finishing of talk
2nd bell	10 min.	the time finishing of talk
3rd bell	14 min.	the time finishing of discussion

2. Poster presentation

In order to foster deep, thorough discussions at IcAUMS2025, we will be implementing poster sessions.

Venue:

Conference Building A, Conference Room A1

Poster Display Schedule:

Session No.21pPS Presenters: April 21(Mon.), from 15:00 to 18:00

Posters can be set up from 13:00.

Core time: 15:00 to 16:00 & 17:00 to 18:00

Session No.22aPS Presenters: April 22(Tue.), from 9:00 to 12:00
Posters can be set up from 8:30.
Core time: 9:00 to 10:00 & 11:00 to 12:00
Session No.22pPS Presenters: April 22(Tue.), from 14:00 to 17:00
Posters can be set up from 13:00.
Core time: 14:00 to 15:00 & 16:00 to 17:00
Session No.23aPS Presenters: April 23(Wed.), from 10:30 to 13:30
Posters can be set up from 9:00.
Core time: 10:30 to 11:30 & 12:30 to 13:30
Session No.23pPS Presenters: April 23(Wed.), from 15:00 to 18:00
Posters can be set up from 14:00.
Core time: 15:00 to 16:00 & 17:00 to 18:00
Session No.24aPS Presenters: April 24(Thu.), from 10:30 to 13:30.
Posters can be set up from 9:00.
Core time: 10:30 to 11:30 & 12:30 to 13:30

* Please promptly remove your posters after the session has concluded.

Poster Specifications:

Posters should be within the dimensions of A0 (841 mm × 1189 mm, portrait orientation).

Display Materials:

The organizers will provide vinyl tape and thumbtacks for displaying posters.

Wireless LAN connection

You can use the free Wi-Fi at the conference venue; however, during peak usage times, the connection may become significantly slow. Therefore, we recommend using personal mobile Wi-Fi for a more reliable connectivity experience.

Corporate Exhibits

Date: April 21-24 (Mon.-Thu.), 2025

Venue: Conference Building A, Conference Room A1

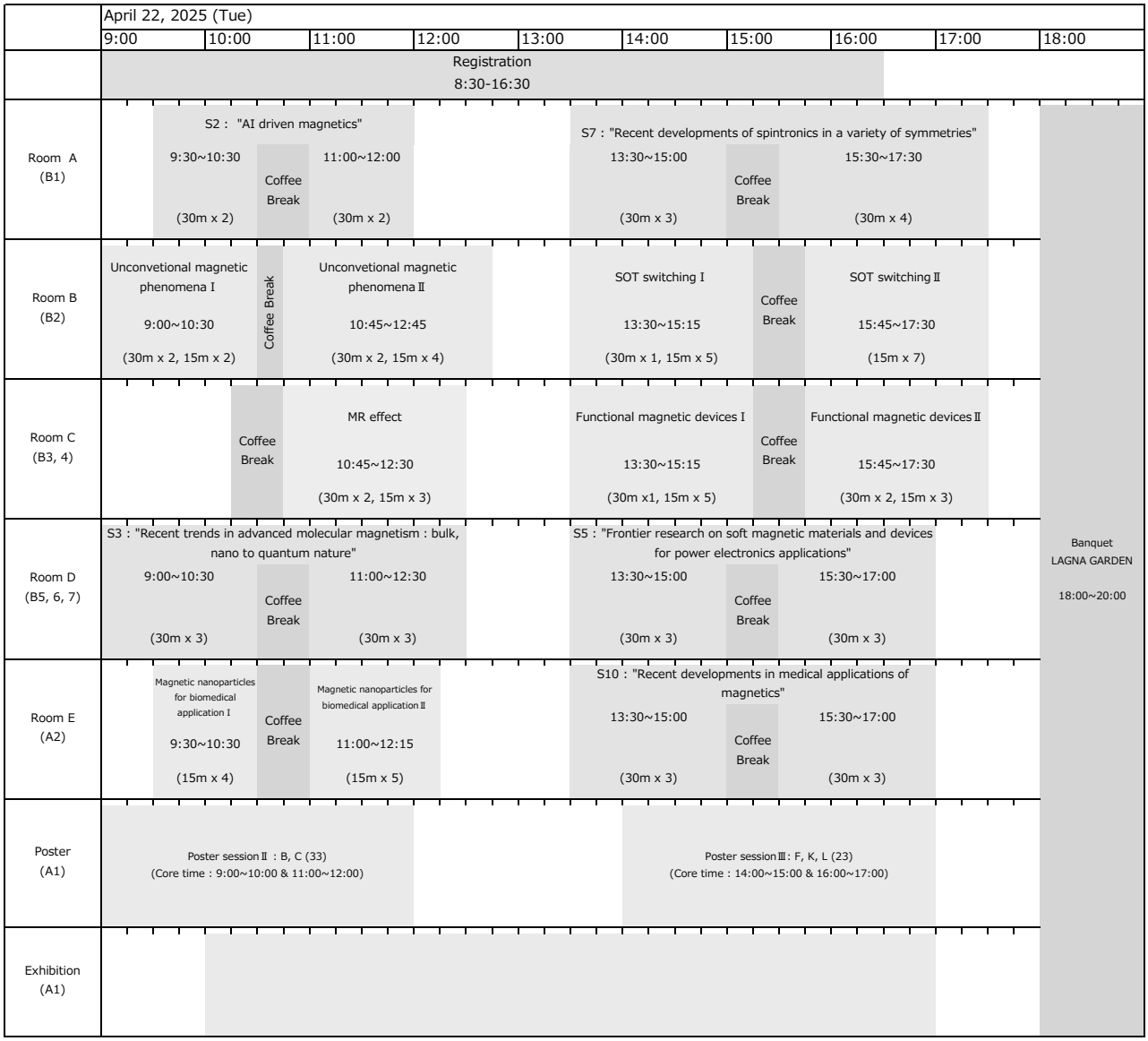
Denshijiki Industry Co.,Ltd.
JEOL Ltd.
Hakuto Co., Ltd.
L.A.Systems Inc. / CIQTEK
NEOARK CORPORATION
Quantum Design Japan
Rigaku Corporation
TOYO Corporation

Notice for participants:

Audio and/or visual recording is prohibited.

The 7th International Conference of Asian Union of Magnetics Societies（IcAUMS2025）・Session Schedule

	April 21, 2025 (Mon)									
	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
		Registration 10:00-17:00								
Room A (B1)					Opening Plenary talk Ⅰ 13:30~14:30 (30m x 2)	Group Photo Coffee Break	S4 : "MRAM" 15:00~16:30 (30m x 3)		16:45~18:15 (30m x 3)	
Room B (B2)						Coffee Break	Nuromorphic computing and related techniques 15:00~17:00 (30m x 2, 15m x 4)		Machine Learning for Magnetic Material Development 17:15~18:00 (15m x 3)	
Room C (B3, 4)						Coffee Break	Spin caloritronics Ⅰ 15:00~16:30 (30m x 2, 15m x 2)		Spin caloritronics Ⅱ 16:45~17:45 (30m x 1, 15m x 2)	
Room D (B5, 6, 7)						Coffee Break	Hard magnetic materials Ⅰ 15:00~16:15 (30m x 2, 15m x 1)		Hard magnetic materials Ⅱ 16:30~18:00 (30m x 2, 15m x 2)	
Room E (A2)						Coffee Break				
Poster (A1)						Coffee Break	Poster session Ⅰ : D, E, J (40) (Core time : 15:00~16:00 & 17:00~18:00)			Bierstube
Exhibition (A1)										


April 22, 2025 (Tue)
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
Registration
8:30-16:30
Room A
(B1)
S2 : "AI driven magnetics"
9:30~10:30
(30m x 2)
Coffee Break
11:00~12:00
(30m x 2)
S7 : "Recent developments of spintronics in a variety of symmetries"
13:30~15:00
(30m x 3)
Coffee Break
15:30~17:30
(30m x 4)
Room B
(B2)
Unconvetional magnetic phenomena Ⅰ
9:00~10:30
(30m x 2, 15m x 2)
Coffee Break
Unconvetional magnetic phenomena Ⅱ
10:45~12:45
(30m x 2, 15m x 4)
SOT switching Ⅰ
13:30~15:15
(30m x 1, 15m x 5)
Coffee Break
SOT switching Ⅱ
15:45~17:30
(15m x 7)
Room C
(B3, 4)
Coffee Break
MR effect
10:45~12:30
(30m x 2, 15m x 3)
Functional magnetic devices Ⅰ
13:30~15:15
(30m x1, 15m x 5)
Coffee Break
Functional magnetic devices Ⅱ
15:45~17:30
(30m x 2, 15m x 3)
Room D
(B5, 6, 7)
S3 : "Recent trends in advanced molecular magnetism : bulk, nano to quantum nature"
9:00~10:30
(30m x 3)
Coffee Break
11:00~12:30
(30m x 3)
S5 : "Frontier research on soft magnetic materials and devices for power electronics applications"
13:30~15:00
(30m x 3)
Coffee Break
15:30~17:00
(30m x 3)
Room E
(A2)
Magnetic nanoparticles for biomedical application Ⅰ
9:30~10:30
(15m x 4)
Coffee Break
Magnetic nanoparticles for biomedical application Ⅱ
11:00~12:15
(15m x 5)
S10 : "Recent developments in medical applications of magnetics"
13:30~15:00
(30m x 3)
Coffee Break
15:30~17:00
(30m x 3)
Poster
(A1)
Poster session Ⅱ : B, C (33)
(Core time : 9:00~10:00 & 11:00~12:00)
Poster session Ⅲ: F, K, L (23)
(Core time : 14:00~15:00 & 16:00~17:00)
Exhibition
(A1)
Banquet
LAGNA GARDEN
18:00~20:00

	April 23, 2025 (Wed)									
	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
	Registration 8:30-16:30									
Room A (B1)	S1 : "Ultra-sensitive magnetic sensors operated at room temperature" 9:00~10:30 (30m x 3)	Coffee Break	11:00~12:30 (30m x 3)			Plenary talk Ⅱ 13:30~14:30 (30m x 2)	Coffee Break	S8 : "Recent advances in spin-orbitronics" 15:00~16:30 (30m x 3)	16:45~18:15 (30m x 3)	
Room B (B2)	Skyrmion Ⅰ 9:00~10:30 (30m x 3)	Coffee Break	Skyrmion Ⅱ 11:00~12:30 (15m x 6)				Coffee Break	THz spin dynamics 15:00~16:00 (30m x 1, 15m x 2)	Molecular magnetism 16:15~18:30 (30m x 3, 15m x 3)	
Room C (B3, 4)	Magnetic characterizations 9:00~10:15 (30m x 2, 15m x 1)	Coffee Break	Fundamental properties of magnetic materials Ⅰ 10:45~12:30 (30m x 2, 15m x 3)				Coffee Break	Fundamental properties of magnetic materials Ⅱ 15:00~17:00 (30m x 4)	Fundamental properties of magnetic materials Ⅲ 17:15~18:45 (15m x 6)	
Room D (B5, 6, 7)	S6 : "Electric machines and their soft and hard magnetic materials" 9:00~10:30 (30m x 3)	Coffee Break	11:00~12:30 (30m x 3)				Coffee Break	Mortors 14:45~16:15 (30m x 2, 15m x 2)	Magnetic refrigeration 16:30~18:45 (30m x 3, 15m x 3)	
Room E (A2)	Magnetic recording 9:00~10:30 (30m x 1, 15m x 4)	Coffee Break	Interface-drived novel magnetic phenomena 10:45~12:30 (30m x 2, 15m x 3)				Coffee Break	Magnetic and magnetotransport properties in advanced thin films 15:00~17:00 (15m x 8)		
Poster (A1)			Poster session Ⅳ : A (42) (Core time : 10:30~11:30 & 12:30~13:30)					Poster session Ⅴ : G(32) (Core time : 15:00~16:00 & 17:00~18:00)		Bierstube
Exhibition (A1)										

	April 24, 2025 (Thu)									
	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
	Registration 8:30-13:00									
Room A (B1)	S9 : "Spin entropy and transport in magnetic materials and devices" 9:00~10:30 (30m x 3)	Coffee Break	11:00~12:30 (30m x 3)		Spin dynamics related phenomena 13:30~15:00 (30m x 1, 15m x 4)		Awards Ceremony & Closing Ceremony			
Room B (B2)	Unique magnetic phenomena in 2D magnetic layers 9:00~10:30 (30m x 2, 15m x 2)	Coffee Break	Novel magnetic materials 11:00~12:15 (30m x 2, 15m x 1)		2D magnetic materials and altermagnetism 13:30~15:00 (15m x 6)					
Room C (B3, 4)	Magnetic tunneling phenomena 9:00~9:45 (15m x 3)	Coffee Break	Soft magnetic materials 10:15~12:00 (30m x 2, 15m x 3)		Hard magnetic materialsⅢ 13:00~14:00 (15m x 4)	Ferrites : from fundamental to applications 14:15~15:15 (15m x 4)				
Room D (B5, 6, 7)	Advances In interplay between superconductivity and magnetism 9:00~10:45 (30m x 3, 15m x 1)	Coffee Break	Spin related phenomena in functional materials Ⅰ 11:00~12:30 (30m x 2, 15m x 2)		Spin related phenomena in functional materialsⅡ 13:30~15:15 (30m x 2, 15m x 3)					
Room E (A2)	Strain-induced related phenomena 9:45~10:30 (15m x 3)	Coffee Break	Novel magnetic phenomena 11:00~12:00 (30m x 2)		Electrical manipulation of magnetic properties 13:00~14:30 (30m x 1, 15m x 4)					
Poster (A1)	Poster session Ⅵ : H, I (17) (Core time : 10:30~11:30 & 12:30~13:30)									
Exhibition (A1)										

PROGRAM

Apr. 21/Room A

Opening ceremony & AUMS award ceremony **13:00 〜13:30**

Opening ceremony

Y. K. Kim (Korea Univ.)

AUMS award ceremony

Y. K. Kim (Korea Univ.)

Plenary talk Ⅰ **13:30 〜14:30**

Chair: S. Yuasa (AIST)

21PL-1 Invention of Nd-Fe-B sintered magnet and development of basic research

°M. Sagawa (Daido Steel)

21PL-2 Asian Magnetics Initiative

°K. Shin (DGIST)

Symposium "MRAM"

15:00 〜18:15

Chair: T. Ono (Kyoto Univ.)

21pA-1 [Invited] Challenges toward voltage-controlled MRAM

°S. Yuasa, T. Nozaki, T. Yamamoto, T. Nozaki, H. Nakayama, T. Ichinose, J. Kim, S. Tsunegi, K. Yakushiji, H. Kubota (AIST)

21pA-2 [Invited] Low-Power SOT-MRAM using MTJs with Strain-Induced Magnetic Anisotropy

°H. Yoda, T. Yoda, Y. Ohsawa, Y. Yamazaki, T. Yoda (YODA-S, Inc.)

21pA-3 [Invited] Spin-orbit torque switching of magnetic tunnel junctions for memory and compute applications

°K. Garello (Spintec)

21pA-4 [Invited] Spin-Transfer-Torque MRAM: the Next Revolution in Memory

°D. C. Worledge (IBM Research)

21pA-5 [Invited] Key Technologies of Scaling Embedded MRAM and Various Applications

°S. Ko, T. Lee, H. Jung, S. Han, Y. Song (Samsung)

21pA-6 [Plenary: AUMS Awardee] STT-MRAM: From Technology Breakthroughs to Products and Applications

°Y. Huai (Avalanche Technology Inc.)

Apr. 21/Room B

Nuromorphic computing and related techniques **15:00 〜17:00**

Chair: Y. Igarashi (Univ. of Tsukuba), E. Xiao (NIMS)

21pB-1 [Invited] 2D Spintornics: Skyrmion and beyond

°Y. Wu (UF)

21pB-2 [Invited] Probabilistic computing with stochastic magnetic tunnel junctions

°S. Fukami (Tohoku Univ.)

21pB-3 Study on Neuromorphic Characteristics and Functionalities of Mn_3Sn-based Devices

°E. Lim, S. Lee, E. Jun, S. Kim (University of Ulsan)

21pB-4 Tailored Exchange Bias and Multilevel Magnetization Control in CoPt/FeMn SOT Devices for Neuromorphic Computing

°S. Lee, Y. Lin, Z. Wu, Y. Tseng (NYCU)

21pB-5 Enhancing spin selectivity in a quantum dot spin qubit using reservoir spin accumulation

°R. Jansen, W. Klich, A. Spiesser, S. Yuasa (AIST)

21pB-6 Assessing Insertion Impacts on STT-MRAM for Energy-Efficient CIM

°Z. Wu[1], K. Chen[2], J. Wei[2], S. Sheu[2], T. Hou[1], Y. Tseng[1] ([1]NYCU, [2]ITRI)

Machine Learning for Magnetic Material Development 17:15 〜18:00

Chair: S. Fukami (Tohoku Univ.), Y. Wu (Univ. of Florida)

21pB-7 Dictionary Learning-Based Screening of Layered Materials via Interface Fermi Surface Matching

Y. Mizutori[1], K. Simalaotao[1, 2], Y. Shimazaki[1], Y. Miura[2, 3], Y. Sakuraba[1, 2], Y. Iwasaki[2], °Y. Igarashi[1, 2]

([1]Univ. of Tsukuba, [2]NIMS, [3]Kyoto Inst. of Tech)

21pB-8 Comprehensive ab initio Stability Analysis of Heusler Compounds with Phonon Considerations for Enhanced Material Discovery

°E. Xiao, T. Tadano (NIMS)

21pB-9 Feature Extraction Using Audio Dataset for Electric Motor Performance Classification

°F. Mujaahid[1, 2], M. F. Hsieh[1], T. Huda[1] ([1]NCKU, [2]UMY)

Apr. 21/Room C

Spin caloritronics Ⅰ 15:00 〜16:30

Chair: J. Jeong (Chungnam National Univ.), Y. Sakuraba (NIMS)

21pC-1 [Invited] Electron orbital dynamics in solids

°H. Lee (POSTECH)

21pC-2 [Invited] Magnon-drag thermoelectric transport in non-uniform spin structures

°J. Ohe (Toho Univ.)

21pC-3 Figure of merit of transverse thermoelectric conversion for magnetic thin film measured by all-in-one evaluation method

°T. Yamazaki[1], N. L. Okamoto[1], T. Ichitsubo[1], T. Seki[1, 2] ([1]IMR, Tohoku Univ., [2]CSIS, Tohoku Univ.)

21pC-4 Enhancement of thermal conductivity change induced by magneto-thermal resistance effect in Cu/CoFe multilayers

°F. Makino[1, 2, 3], T. Hirai[2], T. Shiga[4], H. Suto[2], H. Fujihisa[4], K. Oyanagi[3], S. Kobayashi[3], T. Sasaki[2], T. Yagi[4], K. Uchida[1, 2, 5], Y. Sakuraba[1, 2] ([1]Univ. of Tsukuba, [2]NIMS, [3]Iwate Univ., [4]AIST, [5]Univ. of Tokyo)

Spin caloritronics Ⅱ 16:45 〜17:45

Chair: H. Lee (POSTEC), T. Yamazaki (Tohoku Univ.)

21pC-5 [Invited] Spin Seebeck effect in nanostructure embedded magnetic insulator

°J. Jeong[1], P. Cao Van[1], B. Park[2], S. Kim[2], S. Park[3], H. Jin[3] ([1]Chungnam National University, [2]KAIST, [3]POSTECH)

21pC-6 Electric field control of anomalous Nernst effect in FePt thin films

°S. Yoshida, B. Qiang, T. Miyamachi, M. Mizuguchi (Nagoya Univ.)

21pC-7 Advancement of anomalous Nernst heat flux sensor : new sensor structures for higher performance

°Y. Sakuraba[1], W. Zhou[1], Y. Tabata[2], S. Inamura[2], K. Taguchi[2], M. Orito[2] ([1]NIMS, [2]SEMITEC)

Apr. 21/Room D

Hard magnetic materials Ⅰ 15:00 〜16:15

Chair: Y. Hirayama (AIST), J. Yoo (KIMS)

21pD-1 [Invited] Coercivity Enhancement of $Nd_2Fe_{14}B$ Magnets through Suppressing Pr-rich Shell Formation: Insights from Micromagnetic Simulations

G. Kim[1, 3], T. Kim[2], °K. Lee[3] ([1]School of Materials Science and Engineering, Ulsan National Institute of Science and Technology (UNIST), Ulsan, Republic of Korea, [2]Department of Magnetic Materials, Korea Institute of Materials Science (KIMS). Changwon, Republic of Korea, [3]Graduate School of Semiconductor Materials and Devices Engineering, Ulsan National Institute of Science and Technology (UNIST), Ulsan, Republic of Korea)

21pD-2 [Invited] Microstructure and magnetic properties of 2:17-type Sm-Co permanent magnets according to heat treatment conditions

S. Park[1], G. Min[1], K. Bae[2], °T. Kim[1] ([1]Chonnam National University, [2]R&D Center of Star Group Co. Ltd)

21pD-3 A comparative study on shell formation and coercivity improvement of Pr-free and Pr-alloyed Nd-Fe-B sintered magnets during grain boundary diffusion process with low-melting Pr-Cu-Al-Ga alloy

°S. Lee[1], G. Kim[2], K. S. Lee[2], S. Kim[1], T. H. Kim[1], S. H. Lee[3], D. H. Kim[3], J. G. Lee[1]

([1]Korea Institute of Materials Science, [2]Ulsan National Institute of Science and Technology, [3]Star Group Ind. Co., Ltd.)

Hard magnetic materials Ⅱ **16:30 〜 18:00**

Chair: A. Yamashita (Nagasaki Univ.), S. Lee (Korea Institute of Materials Science)

21pD-4 [Invited] Advancements in Compositional and Processing Methods for $ThMn_{12}$-Type Permanent Magnetic Materials

°J. Park (Korea Institute of Materials Science)

21pD-5 Constituent phases and microstructural characteristics of anisotropic hot-deformed magnets produced by $(Nd_{1-x}Ce_x)$-Fe-B Hydrogenation-Disproportionation-Desorption-Recombination treated precursors

°J. Yoo, T. Kim, H. Cha, S. Kim, J. Lee (Korea Institute of Materials Science)

21pD-6 Fe-rich Sm-Fe-N anisotoropic nanopowder prepared by induction thermal plasma process

°Y. Hirayama, P. Kwangjae, Z. Liu (AIST)

21pD-7 [Invited] Recent Progress and Future Prospects on Fe-based Magnetocaloric Compounds

°A. Fujita (AIST)

Apr. 21/Poster Room

Poster session Ⅰ

15:00 〜 18:00

21pPS-1 Sensitive detection of non-linear spin wave using amplitude modulated RF magnetic field

°S. Yamaguchi[1], S. Yakata[2], T. Kimura[1] ([1]Kyushu Univ., [2]Fukuoka Inst. Tech.)

21pPS-2 Threshold Power Reduction for Parametric Pumping in Perpendicular Standing Spin Wave Modes

°S. Nezu, S. Kataoka, K. Kagawa, K. Sekiguchi (Yokohama National Univ.)

21pPS-3 Stability of Magnonic Soliton through Head-On Collision

°T. Iwata, S. Nezu, K. Sekiguchi (Yokohama National Univ.)

21pPS-4 Non-Adiabatic Magnon Pumping in Single-Crystal Iron

°S. Yokouchi, S. Nezu, K. Imamura, M. Ohtake, K. Sekiguchi (Yokohama National Univ.)

21pPS-5 Spin-Wave Channeling by Cubic Anisotropy

°R. Iwami, K. Kagawa, S. Nezu, K. Imamura, M. Ohtake, K. Sekiguchi (Yokohama National Univ.)

21pPS-6 Spoken Digit Classification using Micro Spin-Wave Reservoir Chips

°R. Yoshida, S. Nagase, S. Nezu, K. Sekiguchi (Yokohama National Univ.)

21pPS-7 Nonreciprocal spin wave excitation in Ni_xFe_{1-x} alloy induced by surface acoustic waves

°S. Sakai[1], K. Yamanoi[1], Y. Nozaki[1, 2] ([1]Keio Univ., [2]CSRN Keio)

21pPS-8 Ultrastrong to nearly deep-strong magnon-magnon coupling with a high degree of freedom in synthetic antiferromagnets

°Y. Wang[1], F. Ma[2], G. Yu[1] ([1]Institute of Physics CAS, [2]Nanjing Normal University)

21pPS-9 Nonreciprocal magnon polaritons in magneto-chiral metamolecule

°K. Mita[1], T. Kodama[1], T. Ueda[2], T. Nakanishi[3], K. Sawada[4], T. Chiba[1], S. Tomita[1]

([1]Tohoku Univ., [2]Kyoto Inst. of Tech, [3]Kyoto Univ., [4]RIKEN)

21pPS-10 Structural design of surface acoustic wave resonators for enhanced magnon-phonon coupling

°A. Nagao[1], K. Yamanoi[1], Y. Nozaki[1, 2] ([1]Dept. of Phys., Keio Univ., [2]CSRN, Keio Univ.)

21pPS-11 Magnon-phonon interaction mapping using high-overtone SAW devices in Co-based Heusler alloys

°K. Yamanoi[1], S. Yamada[2], K. Hamaya[2], Y. Nozaki[1] ([1]Keio Univ., [2]Osaka Univ.)

21pPS-12 Magnetization-Referenced Current Injection Patterns for Reservoir Computing Using Spin Torque Oscillators

°H. Kayama, S. J. Greaves (Tohoku Univ.)

21pPS-13 Phase recognition of topological spin-wave by machine learning

°S. Kamakura, J. Ohe (Toho Univ.)

21pPS-14 Magnetization dynamics in GdFeCo ferrimagnet induced by inner-shell excitation using X-ray Free-Electron Laser
°Y. Akiyama[1,2], R. Kobayashi[1,2], K. T. Yamada[3], H. Yoshikawa[4], K. Takemura[1,2], R. Obata[5], A. Gocho[2,5], S. Sasakura[2,5], K. Kaneshima[5], T. Togashi[6], Y. Kubota[2], A. Tsukamoto[4], Y. Tanaka[2,5], M. Suzuki[1,2]
([1]Kwansei Gakuin Univ., [2]RIKEN, [3]Institute of Science Tokyo, [4]Nihon Univ., [5]Univ. Hyogo, [6]JASRI)

21pPS-15 Néel Vector Rotation Driven by Spin-Orbit Torque in Amorphous Ferrimagnetic GdCo Thin Films
°T. Mandokoro[1], Y. Shiota[1,2], T. Ito[1], H. Matsumoto[1], H. Narita[1], R. Hisatomi[1,2], S. Karube[1,2], T. Ono[1,2] ([1]ICR, [2]CSRN)

21pPS-16 Nonlinear linewidth behavior of the optic ferromagnetic resonance mode in Co/Ru/Co synthetic antiferromagnets
°Y. Hisada, S. Komori, T. Taniyama (Nagoya Univ.)

21pPS-17 Anomalous ferromagnetic resonance linewidth broadening in Fe thin films
°S. Baek[1], S. Komori[1], K. Imura[2], T. Taniyama[1] ([1]Nagoya Univ., [2]ILAS, Nagoya Univ.)

21pPS-18 Analysis of Substitutional Effects of Sn and Sb on Magnetocrystalline Anisotropy of MnBi at Finite Temperature
°Y. Harashima[1,2], A. Nishida[1], Y. Morishita[3], M. Matsui[3], N. Umezawa, R. Umetsu[4], Y. Shigeta[5], H. Lim[6], N. Kim[6], S. Bae[6], S. D. Roh[6], S. Takasuka[1], T. Takayama[1,2], M. Fujii[1,2,7] ([1]NAIST, [2]DSC, NAIST, [3]LG Japan Lab inc., [4]IMR, Tohoku Univ., [5]CCS, Univ. Tsukuba, [6]LG Innotek Co., LTD, [7]CMP, NAIST)

21pPS-19 Ferroaxial order-dependent circularly polarized Raman scattering in ilmenite $NiTiO_3$
°G. Kusuno[1], T. Hayashida[2], T. Nagai[2], H. Watanabe[2], T. Kimura[2], T. Satoh[1,3] ([1]Science Tokyo, [2]Univ. of Tokyo, [3]IMS)

21pPS-20 Probing magnetic anisotropy in Cr-intercalated $CrTe_2$ layered transition metal halides: Spin-orbit torque method
°Y. Tseng, B. Huang, Y. Tang (NCU)

21pPS-21 Contribution of lattice distortion and N addition to high uniaxial magnetic
°C. Murakami, T. Hasegawa (Akita Univ.)

21pPS-22 Enhanced Stress Stability in Flexible Co/Pt Multilayers with Strong Perpendicular Magnetic Anisotropy
M. Li, H. Yang, Y. Xie, °X. Bao, R. Li (NIMTE)

21pPS-23 Ab-initio study on correlation between magnetostriction and magnetic damping
I. Kurniawan[1], K. Ito[2], T. Seki[2,3], K. Masuda[1], °Y. Miura[1,4]
([1]NIMS, [2]IMR, Tohoku Univ., [3]CSIS, Tohoku Univ., [4]Kyoto Institute of Technology)

21pPS-24 Synthesis of the iron-based superconductor $Sr_2Mg_{0.3}Ti_{0.7}FeAsO_{3-\delta}$
°Y. Ueno, N. Azuma, M. Matoba, Y. Kamihara (Keio Univ.)

21pPS-25 Electrical transport properties of Co_2MnGa and Co_2MnSi bulk single crystals
°G. Mimuro[1], T. Tanaka[1], T. Kubota[1], S. Kokado[2], R. Umetsu[1] ([1]Tohoku Univ., [2]Shizuoka Univ.)

21pPS-26 Phase control of the ground state parity in quantum dot Josephson junctions
°S. Kobayashi[1,2], S. Matsuo[1,3], M. Spethmann[4], P. Stano[1], D. Loss[1,4], T. Lindemann[5], S. Gronin[5], G. Gardner[5], M. Manfra[5], S. Tarucha[1] ([1]RIKEN, [2]Tokyo Univ. Sci., [3]Tokyo Inst. Tech., [4]Univ. of Basel, [5]Purdue Univ.)

21pPS-27 Shapiro response of the Josephson diode derived from Andreev molecules
°S. Matsuo[1,2], R. S. Deacon[1], S. Kobayashi[1,3], Y. Sato[1], T. Yokoyama[4], T. Lindemann[5], S. Gronin[5], G. C. Gardner[5], K. Ishibashi[1], M. J. Manfra[5], S. Tarucha[1] ([1]RIKEN, [2]Tokyo Inst. Tech., [3]Tokyo Univ. Sci., [4]Osaka Univ., [5]Purdue Univ.)

21pPS-28 Effect of Preparation Method on the Magnetic and Martensitic Transformation on Ferromagnetic MnCoGe
°T. Tsunematsu[1], M. Onoue[1], Y. Mitsui[1], R. Umetsu[2], K. Koyama[1] ([1]Kagoshima Univ., [2]Tohoku Univ.)

21pPS-29 Cooling rate dependence of magnetostriction on melt-spun ribbons of Fe-Ga alloy and the rare earth elements doping
°L. Chen, R. Y. Umetsu (Tohoku Univ.)

21pPS-30 Phase stability of Mn_3Ga with $D0_{22}$-type structure
°D. Nobayashi, Y. Mitsui, M. Onoue, K. Koyama (Kagoshima Univ.)

21pPS-31 Shielding Frequency Control of Conformal NiFeCuMo/Cu Multilayer EMI Shield
°A. Kikitsu, S. Shirotori (Toshiba)

21pPS-32 Directional-enhancement of magnetic resonance in soft magnetic CoNbZr films with uniaxial magnetic anisotropy
°H. Kijima-Aoki, L. Tonthat, S. Yabukami (Tohoku Univ.)

21pPS-33 Development of nT meter applied by GSR sensor
°M. Hikishima, S. Honkura, Y. Honkura (Magnedesign)

21pPS-34 Enhancement of anomalous Hall and Nernst effects in tetragonal distorted FeCo induced by the addition of V and N elements
°A. K. Patel[1], C. Murakami[2], T. Nakatani[1], T. Hasegawa[2], Y. Sakuraba[1] ([1]NIMS, [2]Akita Univ.)

21pPS-35 Theoretical study on anomalous Hall sensors with the second-order uniaxial anisotropy
°H. Arai, H. Imamura (AIST)

21pPS-36 Investigation of harmonic components in thin film magnetoimpedance elements
°R. Chida, H. Kikuchi (Iwate Univ.)

21pPS-37 Thermal distribution in Joule heating of thin-film element and its effect on adjacent element
°S. Kawasaki, H. Kikuchi (Iwate Univ.)

21pPS-38 Study of an Arbitrary Waveform Magnetic Scale Based on Magnet Width Modulation Method
°A. Hotta, T. Musha (MITSUBISHI ELECTRIC CORPORATION)

21pPS-39 Feedback Cooling of High-Q Magnetically-Levitated Resonator for Ultraprecise Accelerometer
S. Tian[1], D. Kim[1], A. Hodges[1], G. Hermosa[3], C. Padilla[1], P. Romagnoli[1], R. Lecamwasam[1], J. Downes[2], °J. Twamley[1]
([1]OIST, [2]Macquarie U, [3]YuanZe U)

21pPS-40 Impact of manganese and lanthanum substitution on the structural, morphological, and magnetic properties of cobalt ferrite synthesized via co-precipitation for microwave absorption applications
°N. Prasetya[1], R. Rahmawati[1], S. Suharno[2], Y. Taryana[3], R. Riyatun[1], U. Utari[1], N. Nuryani[1], B. Purnama[1] ([1]Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Sebelas Maret, Surakarta 57126, Indonesia, [2]Department of Physics Education, Faculty of Teacher Training and Education, Universitas Sebelas Maret, Surakarta 57126, Indonesia, [3]Center for Research of electronic and telecommunication, Indonesia Institute of Sciences, Bandung 40135, Indonesia)

Apr. 22/Room A

Symposium "AI driven magnetics"

9:30 〜 12:00

Chair: M. Kotsugi(Tokyo Univ. Sci)

22aA-1 [Invited] Representation of magnetic properties by a data-driven extended free energy model
°C. Mitsumata[1], A. Lira Foggiatto[2], M. Kotsugi[2] ([1]Univ. of Tsukuba, [2]Tokyo Univ. Sci.)

22aA-2 [Invited] Extended Free Energy Model: Automated Analysis of Magnetic Domain Structure
°M. Kotsugi (Tokyo Univ. Sci.)

22aA-3 [Invited] Autonomous materials search using simulation, robotics, and machine learning
°Y. Iwasaki (NIMS)

22aA-4 [Invited] Accelerating Magnetic Materials Discovery with Explainable AI Frameworks
°H. C. Dam[1, 2], H. Kino[3], T. Miyake[4] ([1]JAIST, [2]Tohoku Univ., [3]NIMS, [4]AIST)

Symposium "Recent developments of spintronics in a variety of symmetries"

13:30 〜 17:30

Chair: T. Moriyama (Nagoya Univ.)

22pA-1 [Invited] Manipulation of the altermagnetic order via crystal symmetry
°C. Song[1], Z. Zhou[1], X. Chen[2], J. Liu[2], F. Pan[1] ([1]Tsinghua University, [2]The Hong Kong University of Science and Technology)

22pA-2 [Invited] Spin-orbit torque devices for AI and quantum-inspired applications
°C. Pai (National Taiwan University)

22pA-3 [Invited] Generation of Large Spin Current during Magnetic Phase Transition of FeRh
T. Lee[1], M. Park[2], H. Ko[1], J. Oh[1], S. Ko[1], S. Hwang[1], J. Jang[1], G. Baek[1], S. Kim[1], H. Lee[3], M. Jung[2], °K. Kim[1], K. Lee[1]
([1]KAIST, [2]Sogang University, [3]POSTECH)

22pA-4 [AUMS Young Researcher Awardee] Handedness manipulation and electrical readout of propagating antiferromagnetic magnons
°Y. Shiota (Kyoto Univ.)

22pA-5 [Invited] Molecular vibration-driven spin polarization as a source of chirality-induced spin selectivity
°S. Miwa (Univ. of Tokyo)

22pA-6 [Invited] Photonic generation of electron orbital in ferromagnetic film probed by laser-induced magnetization dynamics measurement

°S. Iihama[1], K. Nukui[2], K. Ishibashi[2], S. Mizukami[2] ([1]Nagoya Univ., [2]Tohoku Univ.)

22pA-7 [Plenary: AUMS Awardee] X-spintronics

°T. Ono (Kyoto Univ.)

Apr. 22/Room B

Unconvetional magnetic phenomena Ⅰ **9:00 〜10:30**

Chair: R. Toyama (NIMS), T. Zhu (IOPCAS)

22aB-1 [Invited] Topological Chiral Crystals for Orbitronics

°D. Go (Johannes Gutenberg University Mainz)

22aB-2 [Invited] Highly efficient spin-charge conversion in ferromagnetic metal Fe / topological Dirac semimetal α-Sn heterostructures

°L. D. Anh[1], M. Ishida[1], S. Fukuoka[1], T. Chiba[2], Y. Kota[3] ([1]Univ. of Tokyo, [2]Tohoku Univ., [3]NIT, Fukushima Coll.)

22aB-3 Growth of Highly Textured BiSb Topological Insulator on Si/SiO_x substrates for Spin-Orbit Torque Devices Using TiO_x/MgO Buffer Layers

°W. Li[1], H. Ho Hoang[1], S. Takahashi[2], Y. Hirayama[2], Y. Kato[2], P. N. Hai[1] ([1]Institute of Science Tokyo, [2]Samsung Japan)

22aB-4 Anisotropic spin polarization induced by Fermi surface manipulation

°S. Sugimoto[1], Y. Araki[2], J. Ieda[2], S. Kasai[1] ([1]NIMS, [2]JAEA)

Unconvetional magnetic phenomena Ⅱ **10:45 〜12:45**

Chair: D. Go (JGU Mainz), S. Sugimoto (NIMS)

22aB-5 [AUMS Young Researcher Awardee] Exploring Anomalous Hall Effect in Rare-Earth Transition-Metal (RE-TM) Ferrimagnets for Spintronics Applications

°R. Bhatt, L. Ye, T. Wu (YunTech Taiwan)

22aB-6 High-throughput material exploration system for the anomalous Hall effect using combinatorial experiments and machine learning

°R. Toyama, Y. Iwasaki, P. D. Kulkarni, H. Suto, T. Nakatani, Y. Sakuraba (NIMS)

22aB-7 Compensation-Level Dependent Probabilistic Behavior in Stochastic Magnetic Tunnel Junction with Synthetic Antiferromagnetic Free Layer

°T. Kinoshita, J. Yoon, N. Cacoilo, H. Kaneko, S. Kanai, H. Ohno, S. Fukami (Tohoku Univ.)

22aB-8 Altermagnetic RuO_2(101) thin films exhibiting a single variant

°Z. Wen[1], C. He[1], J. Okabayashi[2], Y. Miura[1,3], T. Ohkubo[1], T. Seki[4], H. Sukegawa[1], S. Mitani[1]
([1]NIMS, [2]Univ. of Tokyo, [3]KIT, [4]Tohoku Univ.)

22aB-9 Polarized neutron reflectometry at CSNS and its application to the study of the magnetic thin films

°T. Zhu (IOPCAS)

22aB-10 [Invited] Searching of Spin-triplet Superconductivity at High-Tc- Superconductor/Ferromagnetic-Oxide Interfaces

°H. Chou[1,2], S. J. Sun[1,2], K. W. Hsueh[1], A. J. Grutter[3], Z. Q. Su[1], L. T. Chen[1], D. Cortie[4], T. Y. Huang[5], S. C. Weng[5], Y. Y. Chin[6], H. J. Lin[5], J. W. Chiou[1,2]
([1]Sun Yat-sen Univ., [2]Nat. Univ. Kaohsiung, [3]NIST Center for Neutron Research, [4]ANSTO, [5]NSRRC, [6]Chung Cheng Univ.)

SOT switching Ⅰ **13:30 〜15:15**

Chair: P. Nam Hai (Science Tokyo), Z. Wang (NIMTE,CAS)

22pB-1 [Invited] Dual SOT Switching Modes in a Single Device Geometry for Neuromorphic Computing

°C. Lai (National Tsing Hua Univ.)

22pB-2 Current-induced spin-orbit torque magnetization switching in electrochemically deposited CoPt thin film

°T. Huang[1], S. Isogami[2], T. Shirokura[1], M. M. Hasan[3], M. Saito[3], J. Uzuhashi[2], T. Ohkubo[2], S. Kasai[2], S. Nakagawa[1], Y. Takamura[1] ([1]Science Tokyo, [2]NIMS, [3]Waseda Univ.)

22pB-3 Investigation of current induced magnetization switching in the SOT devices with low-Z elements

°G. K. Shukla, P. Kumar, S. Isogami (NIMS)

22pB-4 Multilayered MXenes for future two-dimensional nonvolatile magnetic memories with ultrahigh integration
P. Kumar[1], Y. Miura[1, 2], Y. Kotani[3], A. Sumiyoshiya[3], T. Nakamura[3, 4], G. Shukla[1], °S. Isogami[1]
([1]NIMS, [2]Kyoto Inst. of Tech, [3]NanoTerasu, [4]Tohoku Univ.)

22pB-5 Impact of Nitrogen on magnetization switching in non-collinear antiferromagnetic Mn_3PtN compared to Mn_3Pt
°N. Tripathi[1], S. K. Mishra[1], S. Isogami[2] ([1]IIT (BHU), [2]NIMS)

22pB-6 Field-free perpendicular magnetic memory driven by out-of-plane spin-orbit torques
°S. Liang[1], A. Chen[2, 3], L. Han[1], X. Zhang[2], C. Song[1] ([1]Tsinghua University, [2]KAUST, [3]UESTC)

SOT switching Ⅱ **15:45 〜17:30**

Chair: S. Isogami (NIMS), C. Lai (National Tsing Hua Univ.)

22pB-7 Giant bulk spin-orbit torque driven spin Hall nano-oscillators using PtBi alloys
°U. Shashank[1], A. Kumar[1, 4], T. Parvini[2], H. Heyen[2], M. Rajabali[3], M. Munzenberg[2], J. Akerman[1, 4]
([1]University of Gothenburg, [2]Universitat Grefswald, [3]NanOsc AB, [4]Tohoku Univ.)

22pB-8 Giant spin-orbit torque in a symmetry-enforced topological Dirac semimetal
X. Zheng[1], S. Peng[1], M. Radovic[2], R. Li[1], °Z. Wang[1] ([1]NIMTE,CAS, [2]PSI)

22pB-9 Role of Pt and Bi on the giant spin Hall effect in topological semimetal YPtBi
°S. Kagami[1], O. Fujie[1], D. Ito[1], Q. Le[2], B. York[2], C. Hwang[2], X. Liu[2], S. Le[2], M. Maeda[3], T. Fan[3], Y. Tao[3], H. Takano[3], P. N. Hai[1] ([1]Department of Electrical and Electronic Engineering, Institute of Science Tokyo, [2]Western Digital Inc., Great Oaks site, [3]Western Digital Inc., Fujisawa site)

22pB-10 Doped BiSbX Topological Insulator For Spin-Orbit Torque Devices
°F. Tuo[1], Q. Le[2], B. R. York[2], C. Hwang[2], X. Liu[2], M. A. Gribelyuk[2], S. Le[2], L. Xu[2], J. James[2], J. Ortega[2], M. Maeda[1], Y. Tao[1], H. Takano[1], M. Liu[3], R. Zhang[3], S. Namba[3], P. N. Hai[3]
([1]Western Digital Inc., Fujisawa Site, [2]Western Digital Inc., Great Oaks Site, [3]Tokyo Inst. Tech.)

22pB-11 Symmetry and conductivity modulation in $SrRuO_3$ for efficient orbital torque and field-free magnetization switching
°X. Zheng, S. Peng, R. Li, Z. Wang (NIMTE,CAS)

22pB-12 Spin Hall effect in Platinum deposited by atomic layer deposition for 3D spin-orbit torque devices
°P. N. Hai, K. Ishida, K. Sato (Ins. Sci. Tokyo)

22pB-13 Spin Orbit Torque in Gd/FeCo Multilayers with Layer Thickness Gradient
°R. Yabushita[1], D. Oshima[1], S. Takahashi[2], Y. Hirayama[2], Y. Kato[2], T. Kato[1] ([1]Nagoya Univ., [2]Samsung Japan)

Apr. 22/Room C

MR effect **10:45 〜12:30**

Chair: A. Spiesser (AIST), H. Sukegawa (NIMS)

22aC-1 [Invited] Improvement in tunnel magnetoresistance of CoFeB-based magnetic tunnel junctions by MgO barrier interface modification
°H. Sukegawa, T. Scheike, J. Uzuhashi, Z. Wen, S. Kasai, T. Ohkubo, S. Mitani (NIMS)

22aC-2 [Invited] Competing magnetic exchange effects in FeRh/NiFe bilayers
°M. Jung (Sogang University)

22aC-3 Scaling of the Two-Terminal Magnetoresistance in Lateral Spin-Valve Devices
°A. M. Spiesser, R. Jansen, S. Yuasa (AIST)

22aC-4 Shape-dependent magnetoresistance of singular electrodeposited one-dimensional magnetic nanostructures
°K. Rogachev, M. Sobirov, T. Rakhmatullaev, I. Sapovsky, M. Bazrov, A. Samardak (FEFU)

22aC-5 Novel magnetoelectric properties in topological materials containing magnetic atoms
°Z. Y. Ma[1, 2], W. Sun[1, 2], W. G. Li[1, 2] ([1]CAS Key Laboratory of Magnetic Materials and Devices, Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, [2]University of Chinese Academy of Sciences)

Functional magnetic devices Ⅰ **13:30 〜15:15**

Chair: Y. Wu (NIMTE, CAS), S. Yabukami (Tohoku Univ.)

22pC-1 [Invited] Observation of optical vortex generation in magnon-induced Brillouin light scattering
°R. Hisatomi[1, 2, 3], A. Osada[4], K. Taga[1], H. Komiyama[1], H. Narita[1, 3], S. Karube[1, 2, 3], Y. Shiota[1, 2], T. Ono[1, 2]
([1]Kyoto Univ., [2]CSRN, [3]PRESTO, [4]QIQB)

22pC-2 Exploring 3D Magnetic Sensing via Antiferromagnetic Order in Cox/Ptx Superlattices: Insights from Experiment and Simulation

°A. Fathy[1], Y. Huang[1], V. Bhukya[1], C. Hu[1], L. Chang[2], P. Lin[3], M. Lai[3], Y. Tseng[1] ([1]NYCU, [2]ITRI, [3]iSenteck)

22pC-3 Spin Hall sensor using topological insulator

°M. Liu[1], R. Zhang[1], Q. Le[2], B. York[2], C. Hwang[2], X. Liu[2], M. Gribelyuk[2], X. Xu[2], S. Le[2], M. Maeda[3], F. Tuo[3], Y. Tao[3], H. Takano[3], P. N. Hai[1]

([1]Institute of Science Tokyo, [2]Western Digital Inc., Great Oaks site, [3]Western Digital Inc., Fujisawa site)

22pC-4 Analysis of Output Signals in Domain Wall Displacement GMR Sensors with CoFeB Free layers

°K. Komuro, D. Oshima, T. Kato (Nagoya Univ.)

22pC-5 Detection of Green-Synthesized Magnetic Ferrofluid Nanotags Using Commercial Chip-based Giant Magnetoresistance Sensor

°H. Ajrina[1], H. Ardiyanti[1, 2], P. E. Swastika[1, 3], N. I. Istiqomah[1], Z. Zurnansyah[1], L. Shifa[1], E. Suharyadi[1]

([1]Universitas Gadjah Mada, [2]Institut Teknologi Sumatera, [3]Universitas Negeri Yogyakarta)

22pC-6 Non-hysteretic tunnel magnetoresistive sensors using soft-pinning through noncollinear interlayer exchange coupling

P. D. Kulkarni, °T. Nakatani (NIMS)

Functional magnetic devices Ⅱ **15:45 〜17:30**

Chair: R. Hisatomi (Kyoto Univ.), T. Nakatani (NIMS)

22pC-7 [Invited] Shape-modification of soft magnetic particles for electromagnetic wave absorption and thermal management

°Y. Kwon, J. Jeong, B. Park, K. Kim, S. Yang (Korea Institute of Materials Science)

22pC-8 [Invited] Giant Magneto-Impedance effect in soft magnetic microwires: challenges, advances and perspectives.

V. Zhukova[1], P. Corte-Leon[2], A. Gonzalez[1], °A. Zhukov[3] ([1]Univ. Basque Country, UPV/EHU, [2]Univ. Cambridge and Basque Country, UPV/EHU, [3]Univ. Basque Country, UPV/EHU and Ikerbasque)

22pC-9 High frequency magnetoelectric antenna excited by acoustic waves with large bandwidth

°Y. M. Ma, C. Song, F. Pan (Tsinghua University)

22pC-10 High-frequency drive type thin film sensor using coplanar line with slit

R. Suzuki, L. Tonthat, J. Honda, H. Kijima-Aoki, °S. Yabukami (Tohoku University)

22pC-11 Flexible Magnetic Pressure/Strain Sensors Based on GMI Effect

°Y. Wu, S. Li, Y. Liu, R. Li (NIMTE,CAS)

Apr. 22/Room D

Symposium "Recent trends in advanced molecular magnetism: bulk, nano to quantum nature"

9:00 〜12:30

Chair: S. Hayami (Kumamoto Univ.)

22aD-1 [Invited] Spin Crossover System with Multifunction

°S. Hayami (Kumamoto University)

22aD-2 [Invited] Molecular Spin Qubits toward Quantum Computer and High-Density Memry Devices Based on Molecular Magnets

°M. Yamashita (Tohoku University)

22aD-3 [Invited] Quantum Computing with Molecules

°M. Ruben (KITANO)

22aD-4 [Invited] Organometallic Single-Molecule Magnets Containing Radicals and Bismuth

°S. Demir (Department of Chemistry, Michigan State University, East Lansing, Michigan 48824, USA)

22aD-5 [Invited] A molecular approach to 2D magnetic materials

°E. Coronado (Valencia University)

22aD-6 [Invited] Light-Induced Magnetic and Dielectric switching in Spin Transition Molecular Materials

°Y. Meng (Dalian University of Technology)

Symposium "Frontier research on soft magnetic materials and devices for power electronics applications"

13:30 〜17:00

Chair: S. Okamoto (Tohoku Univ.)

22pD-1 [AUMS Young Researcher Awardee] Deep supercooling solidification for high-performance soft magnetic alloys

°C. Wu, Q. Chen, K. Wang, X. Zhang, G. Liu, M. Yan (Zhejiang Univ.)

22pD-2 [Invited] Magnetic Losses in Soft Magnetic Materials up to Radiofrequencies: Experimental and Theoretical Approaches

°S. Dobak[1], C. Beatrice[2], F. Fiorillo[2], C. Ragusa[3], V. Tsakaloudi[4], J. Fuzer[1], P. Kollar[1] ([1]Inst. of Physics, Fac. of Science, P. J. Safarik University, Kosice, 04154, Slovakia, [2]Advanced Materials Metrology & Life Sciences Div., INRIM, Torino, 10135, Italy, [3]Energy Dpt. 'G. Ferraris', Politecnico di Torino, Torino, 10129, Italy, [4]Lab. of Inorganic Materials, CPERI, CERTH, Thessaloniki, 54124, Greece)

22pD-3 [Invited] Effect of additives on soft magnetic properties of Fe-B-based nanocrystalline alloys prepared by ultra-rapid annealing

°Z. Tang, K. Suzuki (Monash University)

22pD-4 [Invited] Study of domain wall dynamics in soft magnetic materials using magnetic Barkhausen noise measurements

°S. Tamaru[1], T. Yamazaki[2] ([1]AIST, [2]TUS)

22pD-5 [Invited] How to use soft magnetic materials from the power electronics designer

°H. Matsumori (Nagoya Inst. Tech.)

22pD-6 [Invited] Sustainable SMC material developments for automotive electrification

°Z. Ye, T. Hiroki (Ube Material Industry)

Apr. 22/Room E

Magnetic nanoparticles for biomedical application Ⅰ 9:30 〜10:30

Chair: L. Subbiah (Anna Univ.), M. Takahashi (JAIST)

22aE-1 Smart PNIPAM/FeRh composite activated by magnetocaloric effect for biomedical applications

°A. Amirov (MISIS)

22aE-2 Optimization of B_1-field homogeneity in transcranial MR-guided focused ultrasound system based AutoML: A simulation study

°E. Lee[1], T. Nam[1], D. Hernandez[2], H. Kim[2], E. Ozhinsky[3], K. Kim[4], K. Kim[1,2] ([1]GAIHST, Gachon University, [2]Neuroscience Research Institute, Gachon University, [3]University of California, San Francisco, [4]Kyung Hee University)

22aE-3 Advanced TMR Sensor-Based Magnetrodes for High-Sensitivity Biomagnetic Field Detection

°J. Chen[1,2,3], J. Luo[1,2], Z. Xu[1,2], Y. Wang[1,2], Z. Jin[1,2], M. Wang[1,2], X. Cai[1,2] ([1]State Key Laboratory of Transducer Technology, Aerospace Information Research Institute, Chinese Academy of Sciences, [2]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, [3]College of Materials Sciences and Opto-Electronic Technology, University of Chinese Academy of Sciences)

22aE-4 Estimating magnetometer position, orientation, and sensitivity at extended distance from the calibration coil array in a magnetically shielded room

°T. Fukui[1,3], T. Shibuya[2], Y. Adachi[1] ([1]Kanazawa Inst. Tech., [2]TDK, [3]LibreFields)

Magnetic nanoparticles for biomedical application Ⅱ 11:00 〜12:15

Chair: Y. Adachi (Kanazawa Inst. Tech.), J. Chen (Chinese Academy of Sciences)

22aE-5 Magnetic separation of lysosomes from cells with lysosome dysfunction using superparamagnetic-plasmonic hybrid nanoparticles

°M. Takahashi, T. S. Le, Y. Hiratsuka, K. Matsumura, S. Maenosono (JAIST)

22aE-6 Green Synthesis of CoFe2O4/C-dots Nanocomposites Utilizing Moringa Oleifera and Watermelon Peels for Enhanced Magnetic Hyperthermia

°S. F. Azzahro[1], A. Jiananda[1], D. A. Larasati[1], M. Y. Darmawan[1,2], E. K. Sari[1], N. I. Istiqomah[1], D. Oshima[3], T. Kato[3,4], E. Suharyadi[1] ([1]Department of Physics, Universitas Gadjah Mada, [2]Department of Physics, Institut Teknologi Sumatera, [3]Department of Electronics, Nagoya University, [4]Institute of Materials and Systems for Sustainability, Nagoya University)

22aE-7 Estimation of 2-dimentional distribution of anisotropy energy and magnetization in easy-axes oriented magnetic nanoparticles

°H. Goto[1], M. Futagawa[1], Y. Takemura[2], S. Ota[1] ([1]Shizuoka Univ., [2]Yokohama National Univ.)

22aE-8 Polyvinyl Alcohol-Based Ferrogel System for Sustained, Magnetic Field-Guided, Acid-Triggered Delivery of Omeprazole

°L. Subbiah, S. Palanisamy, K. Nagarajan, M. Ramasamy Govindaraj (Anna University)

22aE-9 Synthesize of Magnetic-Biodegradable Periodic Mesoporous Organosilica Nanoparticles for Biomedical Applications

°D. N. Mai[1, 2], H. T. Nguyen[1, 2], H. K. Ta[1, 2, 3], H. T. Lai[1, 2], K. Matsumoto[4], F. Tamanoi[4], T. L. Doan[1, 2], T. B. Phan[1, 2] ([1]INOMAR, [2]VNU-HCM, [3]Univ. of Science, [4]iCeMS, Kyoto Univ.)

Symposium "Recent developments in medical applications of magnetics"

13:30 〜17:00

Chair: Y. Takemura (Yokohama National Univ.)

22pE-1 [Invited] Selective destruction of cancer cells without affecting healthy cells by low frequency magneto-mechanical stimulation

P. Obeid[3], R. Morel[2], A. Visona[1, 2], C. Naud[2], A. Nicolas[1], H. Joisten[2], X. Gidrol[3], F. Berger[4], °B. Dieny[2] ([1]Univ. Grenoble Alpes, CNRS/LTM, Grenoble, France, [2]Univ. Grenoble Alpes, CEA, CNRS, IRIG, SPINTEC, Grenoble, France, [3]Univ. Grenoble Alpes, CEA, INSERM, IRIG, Biomics, Grenoble, France, [4]Univ. Grenoble Alpes, INSERM/Brain Tech Lab, Grenoble, France)

22pE-2 [Invited] Magnetic Particle Imaging based Targeted Therapy of Brain Disorders

°J. Yoon (Gwangju Institute of Science and Technology)

22pE-3 [Invited] Ultra-Fast and High-Power Nanoscale Heating Mechanism via Spin Precession in Magnetic Nanoparticles for Potential Biomedical Hyperthermia Applications

°S. Kim (Seoul National University)

22pE-4 [Invited] Engineering Magnetic Nanoparticles for Targeted Brain Imaging : A Focus on Intranasal Administration of Tailored Nanoparticles

°S. Seino, T. Nakagawa (Osaka Univ.)

22pE-5 [Invited] Design of human body sized magnetic particle imaging scanner

°T. Yoshida, T. Sasayama (Kyushu Univ.)

22pE-6 [Invited] Magnetically Guided Effervescent Pantoprazole Tablets for Targeted Anti-Ulcer Therapy: Development and Optimization

°S. Palanisamy[1], L. Subbiah[1], K. Nagarajan[1], Y. Takemura[2], S. Ota[3] ([1]Department of Pharmaceutical Technology, Centre for Excellence in Nanobio Translational Research, University College of Engineering, Bharathidasan Institute of Technology Campus, Anna University, Tiruchirappalli, Tamil Nadu, India. PIN-620024, [2]Yokohama National University, Japan, [3]Shizuoka University, Japan)

Apr. 22/Poster Room

Poster session Ⅱ

9:00 〜12:00

22aPS-1 Strain regulation of skyrmions density on flexible substrates

°R. Zou, H. Yang, Y. Xie, R. Li (NIMTE)

22aPS-2 Machine Learning Analysis of Temperature- and Frequency-Dependent Self-Organization Mechanisms in YIG Magnetic Domain Structures

°R. Nagaoka[1], A. Lira Foggiatto[1], T. Yamazaki[1], C. Mitsumata[2], M. Kotsugi[1] ([1]Tokyo Univ. Sci., [2]Univ. of Tsukuba)

22aPS-3 Growth of Co Thin Films with Low Roughness by ALD for 3D Magnetic Memory

°Y. Hu, K. Sato, R. Zhang, K. Ishida, P. N. Hai (Tokyo Inst. Tech.)

22aPS-4 Magnetic and magneto-transport properties of non-collinear antiferromagnet Mn_3Ge epitaxial films

°Y. Takeuchi[1], H. Sepehri-Amin[2], S. Sugimoto[2], T. Hiroto[3], S. Kasai[2] ([1]ICYS, NIMS, [2]CMSM, NIMS, [3]RNFS, NIMS)

22aPS-5 Magnetic and crystallographic properties of pulsed electrochemically deposited CoPt thin films
°Y. Takamura[1], T. Huang[1], Y. Tanaka[1], M. Tanaka[2], M. Saito[2], P. Allongue[3], J. Uzuhashi[4], T. Ohkubo[4], S. Kasai[4], S. Nakagawa[1]
([1]Science Tokyo, [2]Waseda Univ., [3]Ecole Polytechnique Palaiseau, [4]NIMS)

22aPS-6 Enhanced Stress Stability in Flexible Co/Pt Multilayers with Strong Perpendicular Magnetic Anisotropy
M. Li, H. Yang, Y. Xie, °R. Li (NIMTE)

22aPS-7 Evaluation of crystal structure and magnetic properties in Cobalt thin films deposited on $LiTaO_3$ substrates
°T. Abe[1], S. Shikano[1], K. Shimamura[2], H. Sugiyama[2], S. Ono[3], M. Shima[1], K. Yamada[1]
([1]Gifu Univ., [2]Kanazawa Univ., [3]Muroran Int. Univ.)

22aPS-8 Reduction of antiphase boundary density of spinel ferrite thin films by oxidation annealing
°K. Takeo, H. Yanagihara (Univ. of Tsukuba)

22aPS-9 The transformation of the preferred orientation axis in ordered FePt alloy thin films on heat treatment
°K. Daike, H. Yoshikawa, A. Tsukamoto (Nihon Univ.)

22aPS-10 Coherent harmonic generation of magnons in spin textures
°G. Lan[1], K. Liu[1], Z. Wang[2], G. Liu[1], P. Yan[2], G. Yu[1] ([1]IOP, CAS, [2]UESTC)

22aPS-11 Asymmetry of domain walls motion in out of plane and in plane magnetic fields in Pd/Co/Pd epitaxial system
°N. N. Chernousov, A. V. Davydenko, A. S. Pashenko, A. A. Turpak, A. G. Kozlov (Far Eastern Federal University)

22aPS-12 Anomalous increase of Gilbert damping in $La_{0.5}Sr_{0.5}MnO_3$ thin films induced by the emergence of antiferromagnetic phase
°R. Arakawa, T. Onogi, S. Komori, T. Taniyama (Nagoya Univ.)

22aPS-13 Preparation of Al_2O_3 films applied to multi-layered magnetic films
°F. Yamashita, R. Sankoda, A. Yamashita, T. Yanai, M. Nakano, H. Fukunaga (Nagasaki Univ.)

22aPS-14 Demonstration of non-collinear ferrimagnetism in (111)-oriented Mn_4N thin films by X-ray magnetic circular dichroism
°A. Hatate[1], T. Yasuda[1], K. Amemiya[2], T. Suemasu[1] ([1]Univ. of Tsukuba, [2]KEK)

22aPS-15 Thinned Nd-Fe-B sintered magnets for donors in LIFT technique
°R. Sankoda[1], K. Masuda[1], F. Yamashita[1], T. Motomura[1], A. Yamashita[1], T. Yanai[1], M. Nakano[1], T. Shinshi[2], H. Fukunaga[1]
([1]Nagasaki Univ., [2]Institute of Science Tokyo)

22aPS-16 Crystal Growth and Phase Formation of Fe-N Epitaxial Thin Films on MgO(001) Substrates
°K. Imamura[1], S. Isogami[2], M. Ohtake[1] ([1]Yokohama National Univ., [2]NIMS)

22aPS-17 Perpendicularly magnetized synthetic antiferromagnetic layers based on CoPd/Ru/CoPd(111) multilayers for magnetic tunnel junctions
°K. B. Fathoni, T. Scheike, Z. Wen, S. Mitani, H. Sukegawa (NIMS)

22aPS-18 Indirect Exchange Interaction for Perpendicularly Magnetized CoFeB Layers through W Interlayer
°X. Hou, K. Ito, V. K. Kushwaha, T. Yamazaki, T. Seki (Tohoku Univ.)

22aPS-19 Thermo-Magnetic Image of a Magnetic Wire Using a Laser Induced Electromotive Force
°S. Sumi, M. Mohammadi, K. Tanabe, H. Awano (Toyota Tech. Inst.)

22aPS-20 Fabrication and analysis of Co-Pt multilayer nanowires prepared by dual-bath electrodeposition
°R. Kawana[1], N. Ohguchi[1], M. Saito[2], T. Homma[2,3], T. Kato[4], T. Ono[5], M. Shima[1], K. Yamada[1] ([1]Gifu Univ., [2]Res. Org. for Nano and Life Innov. Waseda Univ., [3]Dept. of Appl. Chem. Waseda Univ., [4]Nagoya Univ., [5]ICR Kyoto Univ.)

22aPS-21 Effect of smooth transition from crystalline to amorphous phase on magnetic behavior of gradient Co-CoW nanowires
°T. Rakhmatullaev, I. Sapovskii, M. Sobirov, K. Rogachev, N. Ilin, A. Samardak (FEFU)

22aPS-22 Crystalline/amorphous three-segmented Co/CoW nanowires: synthesis and magnetic properties
°I. Sapovskii, T. Rakhmatullaev, M. Sobirov, K. Rogachev, N. Ilin, A. Samardak (FEFU)

22aPS-23 Exchange bias in ultrathin epitaxial Pd/Co/CoO films
°E. V. Tarasov[1,2], A. F. Shishelov[1], I. A. Tkachenko[2], A. G. Kozlov[1] ([1]FEFU, [2]ICh FEB RAS)

22aPS-24 Enhancement of Hydrogen Evolution Reaction in Water Splitting with the Gadolinium doped Molybdenum Disulfide Magnetic Catalyst
K. Tang, J. Wu, °C. Lee (NTHU)

22aPS-25 Non-linear Hall effect in graphene induced by strong orbital diamagnetism
M. Wang[1], Y. Fan[2], H. Wu[2], °C. Chang[1,3] ([1]Quantum information center, Chung Yuan Christian University, [2]School of Physics, Beijing Institute of Technology, [3]Department of Physics, National Taiwan University)

22aPS-26 Current-voltage characteristics in $NiPS_3$/Pt/Co multilayers
°K. Tada, Y. Suzuki, T. Hattori, K. Hayashi, S. Iihama, T. Moriyama (Nagoya Univ.)

22aPS-27 Magnetic controlled spin qubit simulation in h-BN defect

°C. Lee, Y. Tang (National Central University)

22aPS-28 Effect of stacked granular buffer layer with carbon on nanostructure and magnetic properties of FePt granular films for heat assisted magnetic recording media

°D. Miyazaki[1], K. Tham[1], S. Saito[2] ([1]TANAKA, [2]Tohoku Univ.)

22aPS-29 Small grain size FePt granular films with co-addition of nitride and carbon as grain boundary materials for HAMR media

°K. Tham[1], D. Miyazaki[1], S. Saito[2] ([1]TANAKA, [2]Tohoku Univ.)

22aPS-30 Oscillation stability vs. applied field to STO for MAMR

°Y. Kanai[1], K. Tatsuno[1], S. J. Greaves[2] ([1]Niigata Inst. Tech., [2]Tohoku Univ.)

22aPS-31 A Study on Error Correction for Domain Wall Motion Memory

°Y. Nakamura, M. Nishikawa, Y. Okamoto (Ehime Univ.)

22aPS-32 Perpendicular magnetic anisotropy and microstructure of FePt (x-N, Ag, C) (x=B, Al) films

°J. Tsai, Y. Lin, M. Lin, C. Tsai, H. Huang (NCHU)

22aPS-33 Design and properties of HDL multilayered media with diffusion barrier for magnetic hologram memory

°Y. Nakamura, M. Okamoto, S. B. Chauhan, P. Lim (Toyohashi Univ. Tech.)

Poster session Ⅲ

14:00 〜17:00

22pPS-1 Spin current in superconductors with structural chirality

°K. Hara, Y. Yanase (Kyoto Univ.)

22pPS-2 Superconducting lateral spin valve with Permalloy/Al transparent interface

S. Tsuboguchi, °R. Oshima, S. Kammoto, K. Yamada, T. Kimura (Kyushu Univ.)

22pPS-3 Signature of nonreciprocal magneto-transports in conventional superconducting films

°Y. Sawada[1], S. Obinata[1], R. Oshima[1], K. Ohnishi[2], T. Kimura[1] ([1]Kyushu Univ., [2]Kindai Univ.)

22pPS-4 High-T_c superconducting spin valves with multiple pair breaking effects

°T. Kikuta, S. Komori, K. Imura, T. Taniyama (Nagoya Univ.)

22pPS-5 Effect of highly off-stoichiometric deposition in epitaxial $YBa_2Cu_3O_{7-\delta}$ film

°Y. Chen[1], D. Qu[1, 2], S. Huang[3], J. G. Lin[1, 2] ([1]Center for Condensed Matter Sciences, National Taiwan University, [2]Center for Atomic Initiatives for New Materials, National Taiwan University, [3]Department of Physics, National Taiwan University)

22pPS-6 Pt thickness dependence of superconductivity in Nb/V/Pt/Fe/Pt/V/Ta superlattices

°F. Tokoro[1], H. Narita[1], R. Kawarazaki[1], R. Iijima[1], R. Hisatomi[1, 2], S. Karube[1, 2], Y. Shiota[1, 2], T. Ono[1, 2] ([1]ICR, Kyoto Univ., [2]CSRN, Kyoto Univ.)

22pPS-7 Device Width Dependence of Superconducting Diode Effect in Nb/V/Ta Artificial Superlattice

°R. Iijima, R. Kawarazaki, F. Tokoro, R. Hisatomi, S. Karube, Y. Shiota, T. Ono (Kyoto Univ.)

22pPS-8 Effects of Quantum Geometry on Unconventional Superconductivity

°Y. Hirobe, T. Kitamura, Y. Yanase (Kyoto Univ.)

22pPS-9 Detection and Modulation of Surface-Acoustic-Wave-Driven Magnetization Dynamics

°C. Chen, F. Pan, C. Song (Tsinghua University)

22pPS-10 Understanding magnetoelectric coupling in type-II multiferroic $Yb_2Cu_2O_5$ by neutron diffraction

°P. Kusuma[1], C. H. Lee[1], C. W. Wang[2] ([1]Department of Applied Physics, Tunghai University, Taichung 407224, Taiwan, [2]National Synchrotron Radiation Research Center, Hsinchu 300092, Taiwan)

22pPS-11 Crystallographic, magnetic, and magnetooptical properties of Ga substituted single crystal yttrium iron garnet

°T. Satoh, Y. Miyazawa, S. Iwamoto, Y. Yang, S. Lee, X. Liu (Shinshu Univ.)

22pPS-12 Voltage controlled magnetic anisotropy effect in a magnetic tunnel junction with a crystalline MgO/ZrO_2/MgO tunnel barrier

H. Onoda, °T. Nozaki, T. Nozaki, S. Yuasa (AIST)

22pPS-13 Voltage-controlled magnetization reversal of a 100-nm-thick magnetic layer characterized by micromagnetic simulation

°M. Kawana, N. Funabashi, K. Aoshima, K. Machida (NHK)

22pPS-14 Dual engineering of Co/MgO interface using ultrathin heavy metal insertion and post-oxidation for voltage-controlled magnetic anisotropy effect

°H. Nakayama, T. Nozaki, T. Nozaki, S. Yuasa (AIST)

22pPS-15 In-situ LTEM Observation and Kinetics of Magnetic Skyrmion Crystal Formation from the Conical Phase

C. Seol, S. Park, G. Min, S. Lee, Y. Lee, °T. Kim (Chonnam National University)

22pPS-16 Magnetic Domain Observation on Curvature Surface by Polarization Angle Detection Using 16-bit Polarization Camera

°S. Meguro[1], S. Saito[2] ([1]NEOARK, [2]Tohoku Univ.)

22pPS-17 Evaluation of spin torque efficiency in composition-graded materials

°M. Kawai[1], S. Takagi[1], H. Nakayama[1], K. Yamanoi[1], Y. Nozaki[1, 2]

([1]Dept. of Phys., Keio University, [2]Center for Spintronics Research Network, Keio University)

22pPS-18 Analysis of Curvature Effect of Yoke and Specimen on Barkhausen Noise Measurement

°H. Chiba[1], H. Kikuchi[1], K. Matsumura[2] ([1]Iwate Univ., [2]Infitech.M)

22pPS-19 Effect of Yoke Material on Barkhausen noise of Curved Surface Specimens

°H. Saito, H. Chiba, H. Kikuchi (Iwate Univ.)

22pPS-20 Iron loss measurement in high-frequency Large amplitude magnetic field

°H. Tanaka, T. Mannen, T. Isobe, E. Kita, H. Yanagihara (Univ. of Tsukuba)

22pPS-21 Estimating parameters from magnetic domain images with different imaging scales using machine learning

°S. Hashimoto[1], Y. Nakatani[2], H. Awano[1], K. Tanabe[1] ([1]Toyota Tech. Inst., [2]UEC)

22pPS-22 Evaluation of physical reservoir based on vortex spin torque oscillator with modified free layer

°K. Horizumi[1], T. Chiba[2, 3], T. Komine[1] ([1]Ibaraki Univ., [2]FRIS, [3]Tohoku Univ.)

22pPS-23 Demonstration of image classification using 1-layer magneto-optical diffractive deep neural networks

°H. Sakaguchi[1], T. Honma[1], S. Sumi[2], H. Awano[2], H. Nonaka[3], F. Z. Chafi[1], T. Ishibashi[1]

([1]Nagaoka Univ. Tech., [2]Toyota Tech. Inst., [3]Aichi Inst. Tech.)

Apr. 23/Room A

Symposium "Ultra-sensitive magnetic sensors operated at room temperature"

9:00 〜12:30

Chair: M. Oogane (Tohoku Univ.)

23aA-1 [Invited] Ultra-sensitive tunnel magneto-resistive sensors

°M. Oogane (Tohoku Univ.)

23aA-2 Withdrawn

23aA-3 [Invited] Fabrication and application of Flexible giant magnetoresistive elec-tronic skin

°Z. Jin[1, 2], C. Zhang[1], J. Chen[1, 2]

([1]Aerospace Information Research Institute, Chinese Academy of Sciences, [2]University of Chinese Academy of Sciences,)

23aA-4 [Invited] Toward Quantum Imaging of Bio-medical Systems based on Diamond NV Centers

°D. Lee (Korea Univ.)

23aA-5 [Invited] Quantum sensing at nanoscale enabled by diamond spin qubits

°F. Jelezko (Ulm University)

23aA-6 [Invited] Diamond magnetometer and magnetic nanoparticles for biomedical applications

°A. Kuwahata (Tohoku Univ.)

Plenary talk Ⅱ **13:30 〜14:30**

Chair: M. Mizuguchi (Nagoya Univ.)

23PL-1 Magnetic Tunnel Junctions and Josephson junctions formed from 2D van der Waals layers

°S. S. Parkin (Max Planck Institute of Microstructure Physics)

23PL-2 Using skyrmions for AI and using AI for skyrmion research

°M. Kläui (Uni Mainz)

Symposium "Recent advances in spin-orbitronics"

15:00 〜18:15

Chair: S. Miwa (Univ. of Tokyo)

23pA-1 [Invited] Spin-Charge Interconversion in Topology Materials and Chiral Perovskites

°H. Yang (National University of Singapore)

23pA-2 [Invited] Giant Modulation of Longitudinal Magnetoresistance of the $Fe_{5-x}GeTe_2$ with In-Plane Bias

°S. Kim (University of Ulsan)

23pA-3 [Invited] Low-Power Electronics: Advancing SOT-MRAM and Low-Voltage Magnetoelectric Devices

°Y. Huang (National Yang Ming Chiao Tung University)

23pA-4 [Invited] Unconventional responses in non-collinear antiferromagnets

°J. Han, S. Fukami (Tohoku Univ.)

23pA-5 [Invited] Spin-torque diode effect in a noncollinear antiferromagnet Mn_3Sn/W bilayer

°S. Sakamoto[1], T. Nomoto[2], T. Higo[1], Y. Hibino[3], T. Yamamoto[3], S. Tamaru[3], Y. Kotani[4], H. Kosaki[1], M. Shiga[1], D. Nishio-Hamane[1], T. Nakamura[4, 5], T. Nozaki[3], K. Yakushiji[3], R. Arita[1, 6], S. Nakatsuji[1], S. Miwa[1, 7]

([1]Univ. of Tokyo, [2]Tokyo Metropolitan Univ., [3]AIST, [4]JASRI/SPring-8, [5]Tohoku Univ., [6]RIKEN, [7]Johns Hopkins Univ,)

23pA-6 [Invited] Superparamagnetic Superparticles for Advanced Hyperthermia and Biodetection: Overcoming the Particle Size Limit

°M. Phan (Univ. of South Florida)

Apr. 23/Room B

Skyrmion Ⅰ **9:00 〜10:30**

Chair: B. Qiang (Nagoya Univ.), S. Yang (KRISS)

23aB-1 [AUMS Young Researcher Awardee] Emergence of Giant Magnetic Chirality during Dimensionality Crossover of Magnetic Materials

°D. Kim (Korea Institute of Science and Technology)

23aB-2 [Invited] Classical and Quantum Skyrmionics

°C. Hwang (KRISS)

23aB-3 [Invited] Metadynamics calculations of skyrmion stability

°J. Barker, I. Charalampidis (University of Leeds)

Skyrmion Ⅱ **11:00 〜12:30**

Chair: S. Kasai (NIMS), D. Kim (KIST)

23aB-4 Hardware Implementation of Homeostasis in Skyrmion-Based Neuron Devices

°S. Yang, K. Moon, C. Hwang (KRISS)

23aB-5 Topological Data Analysis for Configurational Properties in Skyrmion Lattice System: Persistent Homology

°M. Taniwaki[1], T. B. Winkler[2], J. Rothörl[2],, R. Gruber[2], C. Mitsumata[3], M. Kotsugi[1], M. Kläui[2]

([1]Tokyo Univ. Sci., [2]JGU Mainz, [3]Univ. of Tsukuba)

23aB-6 Colossal Topological Nernst effect by Skyrmions n the Filled β-Mn-type $Fe_{2-x}Pd_xMo_3N$ Chiral Magnetic Epitaxial Thin Films

°B. Qiang, K. Yamamoto, H. Asano, T. Miyamachi, M. Mizuguchi (Nagoya University)

23aB-7 Nonlinear collective dynamics excited for room-temperature skyrmions

°S. Yadav[1], S. Chatterjee[1], S. Sugimoto[2], S. Kasai[2] ([1]IIT(BHU) Varanasi, [2]NIMS)

23aB-8 Higher Order Nonlinear Hall Effects in the Presence of Chiral Spin Textures

°T. Tasaki[1, 2], T. Dohi[1], K. V. De Zoysa[1], K. Saijo[1, 2], H. Ohno[1, 3, 4, 5], S. Fukami[1, 2, 3, 4, 5, 6] ([1]RIEC, Tohoku Univ., [2]Graduate School of Engineering, Tohoku Univ., [3]WPI-AIMR, Tohoku Univ., [4]CSIS, Tohoku Univ., [5]CIES, Tohoku Univ., [6]Inamori Research Institute for Science)

23aB-9 Giant topological Hall effect induced by bulk Dzyaloshinskii-Moriya interaction in van der Waals $Cr_{1+\delta}Te_2$

°S. Rho[1], D. Jeong[2], H. Kim[2], J. Huh[1], H. Son[1], Y. Kwon[2], M. Cho[1] ([1]Yonsei University, [2]Kyung Hee University)

THz spin dynamics **15:00 〜16:00**

Chair: D. Kim (Chungbuk National Univ.), K. Nawa (Mie Univ.)

23pB-1 [Invited] Photoinduced THz Emission Dynamics in Ferromagnetic Multilayers

Y. Zhao[1, 2], Q. Mustaghfiroh[1], A. Gayen[1], L. Huang[1, 3], J. Shim[4], H. Piao[4], J. Kim[5], H. Shin[6], K. Kim[1], °D. Kim[1] ([1]Chungbuk National University, [2]Westlake University, [3]Tsinghua University, [4]Yanbian University, [5]Kunsan National University, [6]Pohang Accelerator Laboratory)

23pB-2 Antiferromagnetic spin pumping and spin transfer torque in α-Fe_2O_3/Pt

°T. Hattori[1], T. Moriyama[1], K. Kawagita[2], Y. Ishikawa[2], Y. Fujii[2], Y. Tatematsu[2], K. Hayashi[1], S. Iihama[1], K. Tada[1] ([1]Nagoya Univ., [2]Fukui Univ.)

23pB-3 Lattice-distortion effect on antiferromagnetic resonance frequency in NiO with Li substitution

°K. Nawa[1, 2], S. Rhim[3], K. Nakamura[1] ([1]Mie Univ., [2]NIMS, [3]Univ. of Ulsan)

Molecular magnetism **16:15 〜18:30**

Chair: H. Miyasaka (Tohoku Univ.), N. Yoshioka (Keio Univ.)

23pB-4 [Invited] Towards deeper brain stimulation using magnetically induced electric fields

°M. Sekino, A. Iino, Z. Xin, M. Fushimi (Univ. of Tokyo)

23pB-5 [Invited] Chemo-Switchable MOF Magnets

°H. Miyasaka (Tohoku Univ.)

23pB-6 Magneto-structural correlation of stable nitroxyl radical derivatives with rigid cardo structure and substituent effect of ethynyl group

°M. Takii, Y. Miura, N. Yoshioka (Keio Univ.)

23pB-7 Switching Diamagnetism and Paramagnetism in Naphthalene Bisnitroxides

°R. Takano, R. Uesugi, D. Iida, T. Ishida (UEC)

23pB-8 Construction of indole nitronyl nitroxide self-assemblies exhibiting strong magnetic interactions and substituent effect

°N. Yoshioka, M. Takii, M. Kunimoto, R. Ohtaka, H. Masuda, Y. Hisatomi, H. Memida, Y. Miura (Keio Univ.)

23pB-9 [Invited] Investigation of Spin State of Magnetic Molecule in Tunneling Junction Combined with RF Signal

°T. Komeda (Tohoku Univ.)

Apr. 23/Room C

Magnetic characterizations **9:00 〜10:15**

Chair: V. Chahar (IIT Delhi), H. Koizumi (Tohoku Univ.)

23aC-1 [Invited] Advanced structural and magnetic characterization of compositionally complex systems with synchrotron X-rays

°A. Smekhova (HZB)

23aC-2 [Invited] Characterization of thin films and multilayers by Generalized Magneto-optical Ellipsometry

°A. Berger (CIC nanoGUNE)

23aC-3 Correlations between Defect Density and Magnetic Properties in Heusler Alloy Films

C. Leung[1], Y. Ling[1], H. Koizumi[2], E. Lesne[3], C. Felser[3], °A. Hirohata[2, 3] ([1]City University. of Hong Kong, [2]Tohoku Univ., [3]Max Planck Inst.)

Fundamental properties of magnetic materials Ⅰ **10:45 〜12:30**

Chair: Y. Kamihara (Keio), D. Kriegner (ASCR)

23aC-4 [Invited] The influence of ZnO nanoparticle addition on the magnetic properties of conductive polymers based on poly-alkylthiophene

°L. Safriani[1], S. J. Eda[1], G. K. Kwando[1], S. Winarsih[2], Y. Maryati[1], M. A. Syakuur[3, 6], A. Aprilia[1], U. Widyaiswari[4], D. P. Sari[5, 6], T. Saragi[1], R. Risdiana[1] ([1]Dept. of Physics, Univ. Padjadjaran, [2]BRIN, [3]Dept. of Chemistry, Univ. Padjadjaran, [4]Dept. of Physics, Univ. Pendidikan Indonesia, [5]Shibaura Inst. Tech., [6]RIKEN)

23aC-5 [Invited] Perpendicular magnetic anisotropy induced by antiferromagnetic layers through antiferromagnetic proximity effects and long-range exchange coupling

°B. Wang[1], T. Li[1], F. Lin[1], Y. Huang[1], T. Chuang[2], D. Wei[2] ([1]Department of Physics, National Changhua University of Education, [2]National Synchrotron Radiation Research Center)

23aC-6 Magnetic and transport properties of ferrimagnetic chalcogenide compounds (Cr,Fe)Z (Z = S, Se)

°W. Yin[1, 2], M. Miyakawa[1], R. Y. Umetsu[1, 3] ([1]Institute for Material Research, Tohoku University, [2]Graduate School of Engineering, Tohoku University, [3]Center for Science and Innovation in Spintronics, Tohoku University)

23aC-7 Construction of magnetic models from non-perturbative calculations

°T. Tanaka, Y. Gohda (Science Tokyo)

23aC-8 Magneto-transport and magnetic property studies of rare-earth based intermetallic compound

°V. Chahar[1], K. Manna[1], R. Umetsu[2], R. Chatterjee[1] ([1]IIT Delhi, [2]Tohoku Univ.)

Fundamental properties of magnetic materials Ⅱ **15:00 〜17:00**

Chair: T. Tanaka (Science Tokyo), B. Wang (National Changhua Univ. of Edu.)

23pC-1 [Invited] Altermagnetism and its manifestation in MnTe

°D. Kriegner (Institute of Physics of ASCR)

23pC-2 [Invited] Novel superconducting properties in few-layer T_d-$MoTe_2$

°T. Wakamura[1], M. Hashisaka[2], Y. Nomura[3], M. Bard[1], S. Okazaki[4], T. Sasagawa[4], T. Taniguchi[5], K. Watanabe[5], K. Muraki[1], N. Kumada[1] ([1]NTT, [2]Univ. of Tokyo, [3]Tohoku Univ., [4]Tokyo Inst. Tech., [5]NIMS)

23pC-3 [Invited] The crucial role of the spin state of cobalt in determining the magnetic properties of cobalt oxides

°Y. Y. Chin[1], Z. Hu[2], H. J. Lin[3], S. Agrestini[2], J. Weinen[2], C. Martin[4], S. Hebert[4], A. Maignan[4], A. Tanaka[5], J. C. Cezar[6], N. B. Brookes[6], Y. F. Liao[3], K. D. Tsuei[3], C. T. Chen[3], D. I. Khomskii[7], J. J. Li[8, 9], X. X. Wang[8, 9], K. Yamaura[8, 9], L. H. Tjeng[2] ([1]Department of Physics, National Chung Cheng University, [2]Max Planck Institute for Chemical Physics of Solids, [3]National Synchrotron Radiation Research Center, [4]Laboratoire CRISMAT, Normandy University, [5]Department of Quantum Matter, ADSM, Hiroshima University, [6]European Synchrotron Radiation Facility, [7]Institute of Physics II, University of Cologne, [8]National Institute for Materials Science, [9]Department of Chemistry, Hokkaido University)

23pC-4 [Invited] The Extraordinary Room Temperature Ferromagnetic Behavior in Gamma ray induced and Gd-Doped few-layered MoS_2 Thin Films Deposited via Magnetron Sputtering with Wafer Size

°C. Lee, F. Hu, M. Wu, A. K. Anbalagan, C. Wang, W. Chan, H. T. Chen (NTHU)

Fundamental properties of magnetic materials Ⅲ **17:15 〜18:45**

Chair: Y. Chin (National Chung Cheng Univ.), T. Wakamura (NTT)

23pC-5 Withdrawn

23pC-6 Tc of a Copper-based high-Tc superconductor after heat treatments under hydrogen atmosphere

H. Namita[1], H. Sato[1], M. Matoba[1], S. Iwasaki[3], M. Fujioka[3], Y. Hara[2], T. Harada[2], M. Miura[2], °Y. Kamihara[1] ([1]Keio Univ., [2]Seikei Univ., [3]Hokkaido Univ.)

23pC-7 Intrinsic planar Hall effect and x-ray magnetic linear dichroism by Yafet-Kittel Structure in $NiCo_2O_4$ film

°H. Koizumi[1], Y. Yamasaki[2], H. Yanagihara[3] ([1]Tohoku Univ., [2]NIMS, [3]Univ. of Tsukuba)

23pC-8 Magnetic and dielectric properties of β-$NaFeO_2$ single crystals

°A. Nugroho[1], M. P. Akbar[1], R. Loke[2], P. Puphal[3], M. Isobe[3], B. Prijamboedi[1], J. Hemberger[2] ([1]Institut Teknologi Bandung, [2]University of Cologne, [3]Max-Planck Inst. Stuttgart)

23pC-9 Neutron diffraction study of the Mn spin arrangement in Mn_2OBO_3

°C. Lee, C. Lin, G. Chen (Department of Applied Physics, Tunghai University, Taichung 407224, Taiwan)

23pC-10 Interplay between structure and phase transition parameters in FeRh alloy

°N. S. Perov[1], A. S. Komlev[1], T. A. Taaev[2], D. G. Merkel[3], G. Z. Radnoczi[4], A. Chirkova[5] ([1]Lomonosov Moscow State University, [2]Amirkhanov Institute of Physics of the Daghestan, [3]Wigner Research Centre for Physics, [4]Centre for Energy Research, [5]Hochschule Bielefeld University)

Apr. 23/Room D

Symposium "Electric machines and their soft and hard magnetic materials"

9:00 〜 12:30

Chair: H. Kikuchi (Iwate Univ.)

23aD-1 [Invited, IEEE Mag. Soc. DL talk] AI-Assisted Reliable Fault Diagnosis in Permanent Magnet Synchronous Motors
°M. Hsieh (National Cheng Kung University)

23aD-2 [Invited] Development of a High-Torque IPMSM Using Sm-Fe-N Bonded Magnets
°Y. Yoshida[1], R. Yoshida[2], T. Uwano[1], S. Sakurai[1], M. Abe[2], S. Tada[2], M. Yamamoto[2], K. Tajima[1] ([1]Akita Univ., [2]NICHIA)

23aD-3 [Invited] Synthesis of high-performance $Sm_2Fe_{17}N_3$ powder with reduction-diffusion process
°S. Okada (AIST)

23aD-4 [Invited] The Status of $SmFe_{12}$-based Alloys: Employing Machine Learning for Optimization
°A. Bolyachkin[1], T. Subagja[1, 2], N. Kulesh[1], X. Tang[1], T. Ohkubo[1], H. Sepehri-Amin[1, 2] ([1]NIMS, [2]Univ. of Tsukuba)

23aD-5 [Invited] Nanocrystalline Magnetic Materials & Components: Applications Roadmap for Advanced Power Electronic Systems
°B. R. Andapally (CBMM)

23aD-6 [Invited] Next-Generation Soft Magnetic Composites: Implications for Axial Flux Motors
°D. Azuma, K. Izumiya, Y. Enokizono, T. Saito, T. Ueno (Sumitomo Electric)

Mortors **14:45 〜 16:15**

Chair: N. Kar (Univ. of Windsor), S. Sakurai (Akita Univ.)

23pD-1 [Invited] Application of Emerging Materials for Improved Electric Motor Performance
°N. Kar (Univ. Windsor)

23pD-2 [Invited] Magnetic Material Characteristics for Improving Performance of Permanent Magnet Motors
°J. Choi (Chungnam Nat'l Univ.)

23pD-3 Design and Analysis of Outer-Rotor PM Motor with Segmented rotor-shape for drone
°S. Sakurai, Y. Yoshida, K. Tajima (Akita Univ.)

23pD-4 An investigation on estimation error in AC loss of toroidal dust cores based on machine learning
°S. Matsumoto, S. Muroga, Y. Kodama, S. Ajia, Y. Endo (Tohoku Univ.)

Magnetic refrigeration **16:30 〜 18:45**

Chair: K. Matsumoto(Kanazawa Univ.), H. Mamiya (NIMS)

23pD-5 [Invited] Hydrogen liquefaction by active magnetic regenerative refrigeration
°K. Kamiya[1], K. Natsume[1], A. Uchida[1], T. Shirai[1], A. T. Saito[1], T. Numazawa[1], K. Matsumoto[2] ([1]NIMS, [2]Kanazawa Univ.)

23pD-6 [Invited] Magnetic, thermal, and transport properties of magnetocaloric materials for hydrogen liquefaction magnetic refrigerator
°K. Matsumoto[1], A. T. Saito[2], H. Kitazawa[2], T. Numazawa[2] ([1]Kanazawa Univ., [2]NIMS)

23pD-7 [Invited] Figure of Merit of Rare Earth Magnetocaloric Materials
T. Cheng[1], J. Chen[1], S. Fang[2], °Y. Tseng[1] ([1]NYCU, [2]ITRI)

23pD-8 Magnetic Refrigerant Particles for Hydrogen Liquefaction by Active Magnetic Regenerative Refrigeration
°A. T. Saito[1], H. Takeya[1], T. D. Yamamoto[2], K. Matsumoto[3], H. Kitazawa[1], K. Kamiya[1], T. Numazawa[1]
([1]NIMS, [2]Tokyo University of Science, [3]Kanazawa University)

23pD-9 High-throughput Evaluation of Magnetic Refrigerants using Multi-sample Neutron Transmission Spectroscopy
°H. Mamiya[1], N. Terada[1], S. R. Larsen[1], T. Shinohara[2], H. Sepehri-Amin[1] ([1]NIMS, [2]JAEA)

23pD-10 Caloric effect in Ni-Mn-Sn metamagnetic shape memory alloys
°W. Sun[1], H. Y. Qian[1], X. Lu[1], J. Liu[2], Z. J. Mo[3], G. W. Li[1] ([1]Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, [2]School of Materials Science and Engineering, Shanghai University, [3]Ganjiang Innovation Academy, Chinese Academy of Sciences)

Apr. 23/Room E

Magnetic recording **9:00 〜10:30**

Chair: S. Greaves (Tohoku Univ.), K. Kankhunthod (King Mongkut's Inst. Tech. Ladkrabang)

23aE-1 [Invited] Microwave-assisted magnetic recording using a dual FGL STO with a soft magnetic layer
°S. Greaves[1], Y. Kanai[2] ([1]Tohoku Univ., [2]Niigata Inst. Tech.)

23aE-2 Double-Track PRML Detection for Two-Track Reading with a Wide-Track Reader in Shingled Magnetic Recording Systems
°A. Khametong[1], C. Warisarn[1], S. J. Greaves[2] ([1]King Mongkut's Institute of Technology Ladkrabang, [2]Tohoku Univ.)

23aE-3 Feasibility Study of Implementing Simple Dual-bit Detection in Dual-Layer Bit-Patterned Magnetic Recording Systems
R. Sriyapai[1], °N. Rueangnetr[1], C. Warisarn[1], S. J. Greaves[2]
([1]King Mongkut's Institute of Technology Ladkrabang, [2]Tohoku Univ.)

23aE-4 Track Misregistration Prediction Scheme of Two-Track Reading with a Wide-Track Reader for Shingled Track Recording
°P. Kochcha, A. Khametong, K. Kankhunthod, C. Warisarn (King Mongkut's Institute of Technology Ladkrabang)

23aE-5 Proof-of-concept for selective magnetization switching by spin wave excitation
°V. K. Kushwaha, T. Yamazaki, T. Seki (Tohoku Univ.)

Interface-drived novel magnetic phenomena **10:45 〜12:30**

Chair: S. Lee (Academia Sinica), Y. Niimi (Osaka Univ.)

23aE-6 [Invited] Anomalous Hall effect in magnetic proximity-induced topological insulator trilayers
°S. Lee[1], K. M. Chen[2], M. Hong[3], R. J. Kwo[2] ([1]Academia Sinica, Taiwan, [2]NTHU, [3]NTU)

23aE-7 Magnetic behavior of bisegmented Co/Ni jellyfish nanowires induced by different combinations of magnetocrystalline and shape anisotropy
°A. Samardak[1], M. Sobirov[1], K. Rogachev[1], N. Ognev[1], A. Ognev[1, 2], A. Samardak[1, 2] ([1]FEFU, [2]SSU)

23aE-8 Comparative study of influence of shape and crystalline structure on magnetic properties and domain structure of Fe, Co and Ni nanowire arrays
°M. Sobirov, I. Sapovskii, T. Rakhmatullaev, K. Rogachev, N. Ilin, A. Samardak (Far Eastern Federal University)

23aE-9 Flexible Exchange-Biased Films with Superior Strain Stability
°H. Yang[1], X. Bao[1], Y. Xie[1], D. Makarov[2], R. Li[1] ([1]NIMTE, CAS, [2]HZDR)

23aE-10 [Invited] Observation of the crossover from quantum fluxoid to half-quantum fluxoid in a chiral superconducting device
°Y. Niimi (Osaka Univ.)

Magnetic and magnetotransport properties in advanced thin films

15:00 〜17:00

Chair: T. Yamada (Chiba Univ.), Y. Xie (Chinese Academy of Sciences)

23pE-1 Strain induced reversible sign change of the anomalous Hall effect in multilayers
°T. Morita[1], T. Koyama[1, 2, 3, 4], D. Chiba[1, 2, 3, 5]
([1]SANKEN, Osaka Univ., [2]CSRN, Osaka Univ., [3]OTRI, Osaka Univ., [4]PRESTO, JST, [5]SRIS, Tohoku Univ.)

23pE-2 Tuning Robotic Motion of Molecular Magnet Array
°T. Yamada[1], P. Krueger[1], M. Horie[2] ([1]Chiba Univ., [2]Nat.Tsing Hua Univ.)

23pE-3 Effect of TMDs underlayer on spin-orbit effects in Pt/Co films
°A. G. Kozlov[1], F. Meng[2], Y. Feng[2], W. B. Li[2], T. Zhang[2], Z. Z. Namsaraev[1], M. A. Kuznetsova[1], A. F. Shishelov[1], A. V. Prikhodchenko[1], M. A. Bazrov[1], M. E. Letushev[1], A. V. Davydenko[1], A. V. Ognev[1, 3], L. I. Davydenko[1], Y. Wang[2]
([1]FEFU, [2]DUT, [3]SSU)

23pE-4 Spin-dependent transport properties in sputter-deposited ferromagnetic high-entropy alloy thin films.
°K. Z. Suzuki[1], K. Takanashi[1, 2] ([1]JAEA, [2]Tohoku Univ.)

23pE-5 Ultra-low damping in GdOx inserted magnetic stacks with large perpendicular magnetic anisotropy
°J. Kim[1], T. Nozaki[1], J. Uzuhashi[2], S. Tamaru[1], T. Ichinose[1], T. Ochiai[1], T. Yamamoto[1], T. Ohkubo[2], K. Yakushiji[1], S. Yuasa[1]
([1]AIST, [2]NIMS)

23pE-6 Growth temperature dependence of ferrimagnetic epitaxial Mn_4N on $Pt/Fe/SrTiO_3(001)$
°S. Akita[1], T. Yasuda[1], K. Amemiya[2], D. Ogawa[3], T. Suemasu[1] ([1]Univ. of Tsukuba, [2]KEK, [3]NIMS)

23pE-7 Magnetic compensation in $Mn_{4-x}Ag_xN$ epitaxial films at room temperature
°Y. Sobukawa[1], T. Yasuda[1], K. Toko[1], K. Amemiya[2], T. Suemasu[1] ([1]Univ. of Tsukuba, [2]KEK)

23pE-8 Stretchable spin-valve sensor array with stable giant magnetoresistance performance
°Y. L. Xie, H. L. Yang, R. W. Li (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences)

Apr. 23/Poster Room

Poster session Ⅳ

10:30 〜13:30

23aPS-1 Interface engineering of topological BiSb/CoFeB heterostructures for efficient spin-charge conversion.
°R. Mondal[1, 2], Z. Wen[1], C. Murapaka[2], H. Sukegawa[1], Q. Le[3], X. Liu[3], B. York[3], M. Maeda[3], S. Mitani[1] ([1]NIMS, [2]IITH, [3]WD)

23aPS-2 Current-induced magnetization switching using Si/Al compositional graded materials
°S. Takagi, K. Yamanoi, Y. Nozaki (Keio Univ.)

23aPS-3 Spin-orbit torque engineering by Ti alloying in beta W-based heterostructures
°D. Kim[1], J. Lee[1], Q. T. Nguyen[2], J. Lee[1], S. H. Rhim[2], Y. Kim[1] ([1]korea university, [2]University of Ulsan)

23aPS-4 Perpendicular magnetic tunnel junctions with β-W spin-orbit torque channels
°S. Yoon[1], Z. Wen[2], S. Kasai[2], S. Mitani[2], H. Sukegawa[2], Y. Kim[1] ([1]Korea Univ., [2]NIMS)

23aPS-5 Precise quantification of spin-orbit torques in highly resistive Pt/Co multilayers
°Y. Jo, C. Yun, M. Kim, S. Yu, J. Park, J. Lee, W. Lee, A. Nam, K. Rhie, K. Lee (Korea University)

23aPS-6 Modulation of spin-orbit torque in Cu based heterostructures with oxide gating
°M. Kim, C. Yun, J. Lee, S. Yu, Y. Jo, K. Lee, K. Rhie (Korea University)

23aPS-7 Current-induced domain wall motion in Gd-Fe wires with vertical composition gradient
°J. Mizuno, H. Awano, K. Tanabe (Toyota Tech. Inst.)

23aPS-8 Inductance and capacitance emerged from topological electromagnetism
°Y. Araki, J. Ieda (Japan Atomic Energy Agency)

23aPS-9 Current direction dependence of spin-orbit field in a crystalline ferromagnetic layer with perpendicular anisotropy
°S. Park[1], K. Lee[1], S. Lee[1], X. Liu[2], M. Dobrowolska[2], J. K. Furdyna[2] ([1]Korea University, [2]University of Notre Dame)

23aPS-10 Fabrication of perpendicular magnetic anisotropic films on the side of uneven structures toward 3D devices
°Y. Yasuda[1], Y. Kurokawa[2], S. Sumi[1], H. Awano[1], K. Tanabe[1] ([1]Toyota Tech. Inst., [2]Kyushu Univ.)

23aPS-11 Unconventional scaling law of spin-orbital Hall effect in $SrRuO_3$ and efficient magnetization switching
°S. Peng, X. Zheng, Z. Wang (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences)

23aPS-12 Observation of writing and driving using spin-orbit torque writing for racetrack memory application
°H. Hasegawa, Y. Kurokawa, H. Yuasa (Kyushu Univ.)

23aPS-13 Circularly polarized light-induced magnetic torque in Co alloy films
°K. Nukui[1], S. Iihama[2], K. Ishibashi[1], S. Mizukami[1] ([1]Tohoku Univ., [2]Nagoya Univ.)

23aPS-14 Generation and detection of orbital current using Ni/heavy metal system
°Y. Furukawa, S. Obinata, T. Kimura (Kyushu Univ.)

23aPS-15 Magnetoresistance of (001), (110), and (111) textured RuO_2/Pt bilayer
° S. Yoon[1], S. Ko[2], K. Kim[2], J. Jeong[3], B. Park[4], K. Eom[1], S. Lee[1] ([1]Department of Semiconductor Engineering, Gachon University, Seongnam 13120, Korea, [2]Department of Physics, KAIST, Daejeon 34141, Korea, [3]Department of Materials Science and Engineering, Chungnam National University, Daejeon 34134, Korea, [4]Department of Materials Science and Engineering, KAIST 34141, Daejeon, Korea)

23aPS-16 Magnetic tunnel junctions with metastable cubic GaN barriers
° H. Kwon[1, 2], K. Suzuki[1, 2], K. Deepak[2], M. Tsujikawa[3], R. Tufan[3, 4], M. Shirai[3, 4], S. Mizukami[2, 4] ([1]Graduate School of Engineering, Tohoku University, [2]WPI-Advanced Institute for Materials Research, Tohoku University, [3]Research Institute of Electrical Communication, Tohoku University, [4]Center for Science and Innovation in Spintronics, Tohoku University)

23aPS-17 Temperature-dependence of Anomalous Hall Effect in Al and Ta-seeded TbCo Gradient Structures
R. C. Bhatt, °L. Ye, M. Tsai, T. Wu (YunTech Taiwan)

23aPS-18 Accurate evaluation of spin relaxation in Bi-based Rashba interface using weak anti-localization effect
S. Kammoto, °M. Nakamoto, S. Tsuboguchi, K. Yamada, T. Kimura (Kyushu Univ.)

23aPS-19 Exploring Magnetization Switching and Extraordinary Hall Effect in Compositionally Graded GdFeCo Device
°R. C. Bhatt[1], L. Ye[1], J. Lin[1], N. T. Hai[2], J. Wu[2], T. Wu[1] ([1]YunTech Taiwan, [2]NCUE Taiwan)

23aPS-20 Omnidirectionally stretchable spin-valve sensor array with stable giant magnetoresistance performance
°L. Pan, Y. Xie, H. Yang, X. Bao, J. Chen, M. Zou, R. Li (Chinese Academy of Sciences)

23aPS-21 Simulating the spin dynamics of antiferromagnetic materials under electromagnetic waves
°T. Mukita, S. Kishimoto, K. Nakagawa, S. Ohnuki (Nihon Univ.)

23aPS-22 Dependence of ferrimagnetic GdFe thickness on current induced domain wall velocity for Pt/GdFe wires
°T. Tokuyama[1], T. Sakamoto[1], H. Tozuka[1], M. Tanaka[1], S. Honda[2], H. Awano[3], K. Mibu[1]
([1]Nagoya Inst. Tech., [2]Kansai Univ., [3]Toyota Tech. Inst.)

23aPS-23 Magnetotransport in $Ru_{1-x}Cr_xO_2$ film as a candidate of altermagnet
°Y. Inaoka[1], S. Karube[1, 2, 3], H. Narita[1, 3], R. Hisatomi[1, 2, 3], Y. Shiota[1, 2], T. Ono[1, 2]
([1]ICR, Kyoto Univ., [2]CSRN, Kyoto Univ., [3]JST-PRESTO)

23aPS-24 CoTb alloy for ultrafast-demagnetization-driven spin current and orbital current
°H. Lee, S. Kim (skku)

23aPS-25 Spin-to-Charge Convention via Inverse Altermagnetic Spin-Splitting Effect in RuO_2
C. Liao[1], °Y. Wang[1], Y. Tien[1], S. Huang[1], D. Qu[2] ([1]Department of Physics, National Taiwan University, Taipei, Taiwan, [2]Center for Condensed Matter Sciences, National Taiwan University, Taipei, Taiwan)

23aPS-26 Characterization of spin transport through NiO in the vicinity of the Néel temperature
°I. Sugiura[1], Y. Shiota[1, 2], R. Hisatomi[1, 2], S. Karube[1, 2], T. Ono[1, 2], T. Moriyama[3, 4]
([1]ICR, Kyoto Univ., [2]CSRN, Kyoto Univ., [3]Dept. of Materials Physics, Nagoya Univ., [4]PRESTO, JST)

23aPS-27 Rashba effect and band structure change by metastable structuring of heavy metals at the interface
°T. Yamazaki, Y. Kodani, R. Iimori, K. Yamada, T. Kimura (Kyushu Univ.)

23aPS-28 Spin-current excitation using ultrafast laser pulses in a heavy-metal/rare-earth iron garnet heterojunction
°S. Takahashi[1], Y. You[2], K. Yamanoi[2], Y. Nozaki[2], T. Satoh[1], K. T. Yamada[1] ([1]Science Tokyo, [2]Keio Univ.)

23aPS-29 Thermal transport of angular momentum at the interface of insulative orbital ferrimagnet/non-magnet
°T. Onuma, H. Yanagihara (Univ. of Tsukuba)

23aPS-30 Large Spin Nernst Effect in $Ni_{70}Cu_{30}$ Alloy
°W. Li[1, 2], C. Lin[1], G. Guo[1, 3], S. Huang[1, 4], D. Qu[2, 4] ([1]Department of Physics, National Taiwan University, Taipei 10617, Taiwan, [2]Center for Condensed Matter Sciences, National Taiwan University, Taipei 10617, Taiwan, [3]Physics Division, National Center for Theoretical Sciences, Taipei 10617, Taiwan, [4]Center of Atomic Initiatives for New Materials, National Taiwan University, Taipei 10617, Taiwan)

23aPS-31 Method for measuring thermal conductivity in thin films using anomalous Nernst effect
°K. Tanabe, H. Awano (Toyota Tech. Inst.)

23aPS-32 Influence of impurity doping on anomalous Nernst effect in amorphous GdCo alloys toward heat flux sensing
°T. Koizumi, H. Imaeda, H. Awano, K. Tanabe (Toyota Tech. Inst.)

23aPS-33 Visualization of in-plane magnetization in a Co thin film via the laser-induced anomalous Nernst effect
°S. Mochizuki[1], I. Sugiura[2], T. Ono[2], T. Satoh[1], K. T. Yamada[1] ([1]Science Tokyo, [2]Kyoto Univ.)

23aPS-34 Enhanced anomalous Nernst effect in Fe_4N films substituted by Pt and Pd atoms
°K. Ito[1], H. Yu[1, 2], T. Yamazaki[1], R. Y. Umetsu[1, 3], T. Seki[1, 3]
([1]IMR, Tohoku Univ., [2]Grad. Sch. Eng., Tohoku Univ., [3]CSIS, Tohoku Univ.)

23aPS-35 Enhancement of anomalous Nernst coefficient in CoFe thin film by Cu-Ir addition
°A. Ray[1, 2], S. Biswas[1], P. Alagarsamy[1], R. Modak[3], N. K. Gupta[2], T. Hirai[2], K. Uchida[2, 3], Y. Sakuraba[2] ([1]Indian Institute of Technology Guwahati, Guwahati 781-039, India, [2]National Institute for Materials Science, Tsukuba 305-0047, Japan, [3]The University of Tokyo, Kashiwa, Chiba 277-8561, Japan)

23aPS-36 3D heat flux sensor based on anomalous Nernst effect
°H. Imaeda, R. Toida, T. Takeuchi, H. Awano, K. Tanabe (Toyota Tech. Inst.)

23aPS-37 The voltage-controlled magnetic anisotropy at the interface of Fe and NiO
°S. Jung, H. Yanagihara (Univ. of Tsukuba)

23aPS-38 Topological Hall Transport and Skyrmion Nucleation in Co/Pd Multilayers
°C. Chen[1], T. Huang[1], W. Tang[1], Y. Tang[1], S. Lamichhane[2], S. Liou[2], G. Chen[3], S. Huang[3], X. Fan[4], J. Hong[5]
([1]National Central Univ., [2]Univ. of Nebraska-Lincoln, [3]National Taiwan Univ., [4]Univ. of Denver, [5]Tamkang Univ.)

23aPS-39 Withdrawn

23aPS-40 The Cu thickness dependence of orbital torques in Co/Cu/oxide multilayers

°J. Lee, M. Kim, Y. Jo, S. Yu, J. Park, A. Nam, W. Lee, K. Rhie, K. Lee (Korea University)

23aPS-41 Quantum Geometry Induced Nonlinear Transport in Altermagnets RuO2

°R. Chu[1], L. Han[1], X. Fu[2], J. Liu[2], C. Song[1] ([1]Tsinghua University, [2]HKUST)

23aPS-42 Numerical analysis of dispersion relation and fabrication of magnetic dots in honeycomb Phononic crystals

°Y. You, K. Yamanoi, Y. Nozaki (Keio Univ.)

Poster session Ⅴ

15:00 〜18:00

23pPS-1 Higher permeability of nanogranular films using CoFe alloys by annealing

°M. Naoe[1], M. Sato[1], M. Sonehara[2], K. Miyaji[2], T. Sato[2], N. Kobayashi[1] ([1]DENJIKEN, [2]Shinshu Univ.)

23pPS-2 Relationship between structural and magnetostrictive properties in flat Fe-Co single-crystal thin films

°Y. Nakamura, M. Ohtake (Yokohama National Univ.)

23pPS-3 Phase-field simulation of liquid-phase sintering for investigating microstructural evolution of Nd-Fe-B sintered magnets

°A. Ishii[1], T. Koyama[1, 2], T. Abe[1], M. Ode[1] ([1]NIMS, [2]Nagoya Univ.)

23pPS-4 Fe and Mn substitution effects on structural and magnetic properties of FCC-type $Fe_{50}Mn_{25}Ga_{25}$

°S. Kitahara[1], H. Okada[1], S. Awaji[2] ([1]Tohoku Gakuin Univ., [2]Tohoku Univ.)

23pPS-5 Influence of deposition rate on the structural and magnetic properties of anisotropic Nd-Fe-B film magnets by PLD method

°A. Yamashita, M. Yamamoto, Y. Yamada, T. Yanai, M. Nakano, H. Fukunaga (Nagasaki Univ.)

23pPS-6 Effect of Two-Step Annealing on Hard Magnetic Properties of Fe-Pt Films prepared by Electroplating Method

°A. Hamakawa, Y. Yamaguchi, A. Yamashita, T. Yanai, M. Nakano, H. Fukunaga (Nagasaki Univ.)

23pPS-7 Improving the thermal stability of $Sm(Fe\text{-}Co)_{12}$-B thin films by diffusion of Nb element

°Y. Mori, S. Nakatsuka, M. Doi, T. Shima (Tohoku Gakuin Univ.)

23pPS-8 Magnetic properties and applications of glass-coated ferromagnetic microwires

°V. Zhukova[1], P. Corte-Leon[2], M. Ipatov[1], J. Blanco[4], A. Zhukov[3] ([1]Dept. Polym. Adv. Mater, Univ. Basque Country, UPV/EHU, [2]Dept. Mater. Science & Metallurgy, Univ. Cambridge and Dept. Polym. Adv. Mater, Univ. Basque Country, UPV/EHU, [3]Dept. Polym. Adv. Mater, Univ. Basque Country, UPV/EHU and Ikerbasque, [4]Dept. Appl. Phys. I, EIG, Univ. Basque Country, UPV/EHU)

23pPS-9 High Frequency Magnetic Properties of Submicron-sized Fe-Co-B particles by Aqueous Solution Reduction Method

°K. Sato, K. Wakabayashi, C. Masumoto, T. Miyazaki, S. Ajia, S. Muroga, Y. Endo (Tohoku Univ.)

23pPS-10 Accuracy Evaluation of AC Magnetization Process Measurements for Soft Magnetic Materials

°R. Onodera[1], E. Kita[2], H. Yanagihara[2] ([1]NIT, Ibaraki college, [2]Univ. of Tsukuba)

23pPS-11 Annealing Experiments to Set the Optimal Heat Treatment Conditions for As-spun Fe-Co Ribbons

°H. Choi-Yim, Y. Choi, H. Lee (Sookmyung Women's University)

23pPS-12 Withdrawn

23pPS-13 The effect of annealing temperature on the structure and magnetic properties of Fe-Si ribbons

°T. Takasu[1], R. Umetsu[1], S. Mikami[2], T. Hiraki[2], S. Muroga[1], Y. Endo[1] ([1]Tohoku Univ., [2]Toho Zinc Co., Ltd)

23pPS-14 Preparation of Soft Magnetic Films using Solid/Liquid Hybrid Electroplating Method

°M. Tashiro, K. Shiraki, A. Yamashita, T. Yanai, M. Nakano, H. Fukunaga (Nagasaki Univ.)

23pPS-15 A simulation method of magnetic properties of Fe-Ni bilayer ribbons under bending stress

°S. Nakashima, R. Hirose, T. Yanai, A. Yamashita, M. Nakano, H. Fukunaga (Nagasaki Univ.)

23pPS-16 Improvement in magnetic properties of soft magnetic Ni and Co films electroplated in gel electrolytes

°K. Shiraki, M. Tashiro, A. Yamashita, T. Yanai, M. Nakano, H. Fukunaga (Nagasaki Univ.)

23pPS-17 Enhancing Resistivity of Fe-(Cr, Si, B, Nb) Soft Magnetic Micron Particles by Surface Oxidation under Dry Air Atmosphere

°A. Nishikura, S. Ohnishi, H. Nakashinden, M. Tobise, S. Saito (Tohoku Univ.)

23pPS-18 Micromagnetic simulation of the microstructure parameters influence on the realization of high coercivity state in hard-magnetic MnAl alloys

°E. A. Smirnov, M. V. Gorshenkov (NUST MISIS)

23pPS-19 Effect of Cu content on the magnetic properties for $SmCo_5$thin films fabricated on polyimide substrates

°K. Murakata, S. Kudo, T. Shima, M. Doi (Tohoku Gakuin Univ.)

23pPS-20 Study of the magnetic field effect on the density of dysprosium ions

°E. Ushijima[1, 3], I. Yamamoto[2], M. Yamato[1] ([1]Tokyo Metropolitan Univ., [2]Yokohama National Univ., [3]IMRA Japan Co., Ltd.)

23pPS-21 Coercivity of LIFT-made Nd-Fe-B micromagnets

°G. Tahara, T. Amiya, H. Todoroki, K. Higashi, A. Yamashita, T. Yanai, M. Nakano, H. Fukunaga (Nagasaki Univ.)

23pPS-22 Effect of Short-Time Nd-Al Grain Boundary Diffusion on Coercivity of Isotropic Nd-Fe-B Magnet Films

°S. Hattori, Y. Iwayama, A. Yamashita, M. Nakano, T. Yanai, H. Fukunaga (Nagasaki Univ.)

23pPS-23 Fe-Pt dotted film magnets prepared via LIFT technique

°H. Todoroki[1], G. Tahara[1], K. Higashi[1], A. Yamashita[1], T. Yanai[1], M. Nakano[1], T. Shinshi[2], H. Fukunaga[1]

([1]Nagasaki Univ., [2]Institute of Science Tokyo)

23pPS-24 Preparation of Fe-Pt/Pr-Fe-B/Fe-Pt three-layered thin sheet magnets

°K. Okamura[1], K. Fujii[1], A. Yamashita[1], T. Yanai[1], M. Nakano[1], T. Shinshi[2], H. Fukunaga[1]

([1]Nagasaki Univ., [2]Institute of Science Tokyo)

23pPS-25 Synthesis of high-purity Nd2Fe14B submicron particles via reduction-diffusion process for fabricating fine-grained sintered magnets

°J. Kim[1], K. Yoon[1], H. Jeon[1], T. Kim[2], Y. Lee[1]

([1]Seoul National University of Science and Technology, [2]Korea Institute of Materials Science)

23pPS-26 Fundamental investigation on LIFT-made Nd-Fe-B micromagnets

°T. Amiya[1], G. Tahara[1], H. Todoroki[1], A. Yamashita[1], T. Yanai[1], M. Nakano[1], K. Koike[2], H. Fukunaga[1]

([1]Nagasaki Univ., [2]Yamagata Univ.)

23pPS-27 Magneto-optical and magnetic properties of rapidly quenched amorphous NiCoSiFeB ribbons

°N. N. Perova, S. V. Samchenko, T. B. Shapaeva, N. S. Perov, E. A. Ganshina (MSU)

23pPS-28 Investigation of the glass forming ability and thermal stability of the alloy $Co_{58}Fe_5Ni_{10}Si_{11}B_{16}$ depending on the spinning parameters

°K. E. Pinchuk, V. S. Plotnikov, G. S. Kraynova, V. V. Tkachev, A. M. Frolov (Far Eastern Federal University)

23pPS-29 Magnetic parameters of amorphous alloys composed of transition metals (Fe, Co, Mn) and metalloids (Si, B) with varying compositions

°I. Sapovskii, N. Ilin, T. Rakhmatullaev, G. Kraynova, V. Plotnikov, V. Tkachev (FEFU)

23pPS-30 Perpendicular magnetic field assisted electromagnetic vibration powered generators using amorphous Fe-B alloy ribbons

°N. Isogai, S. Kamiya, Y. Nakamura, T. Kawai, M. Ohtake (Yokohama National Univ.)

23pPS-31 Synthesis of hexagonal W-type ferrite particles with $SrZn_xFe_{18-x}O_{27}$ composition using KBr flux

°A. Hirata[1], K. Horie[1], M. Kishimoto[1], H. Yanagihara[1, 2] ([1]Univ. of Tsukuba, [2]TREMS)

23pPS-32 La-Co substituted strontium ferrite particles synthesized by heat treatment in molten potassium bromide flux

°K. Horie, A. Hirata, M. Kishimoto, H. Yanagihara (Univ. of Tsukuba)

Apr. 24/Room A

Symposium "Spin entropy and transport in magnetic materials and devices"

9:00 〜12:30

Chair: G. Bauer (UCAS)

24aA-1 [Invited] Skyrmion Hall effect in altermagnets

Z. Jin, Z. Zeng, Y. Cao, °P. Yan (UESTC)

24aA-2 [Invited] Magnetic domain lithography and its applications in spintronic devices

°G. Yu (Institute of Physics, Chinese Academy of Sciences)

24aA-3 [Invited] Modulation of Thermal Spin Pumping by Angular Momentum of Rare Earth

°A. B. Cahaya (Univ. Indonesia)

24aA-4 [Invited] Hybrid transverse magneto-thermoelectric conversion in artificially tilted multilayers

°T. Hirai (NIMS)

24aA-5 [Invited] Effective generation of probabilistic bits by exploiting spin-orbit torques in magnetic trilayers

°B. Park[1], S. Kim[1], M. Kohda[2], J. Nitta[2], K. Lee[1] ([1]Korea Advanced Institute of Science and Technology, [2]Tohoku University)

24aA-6 [Invited] Entropy transport in magnets and ferroelectrics

°G. Bauer (UCAS, Tohoku Univ.)

Spin dynamics related phenomena **13:30 〜15:00**

Chair: S. Mangin (Univ. de Lorraine), K. Yamada (Science Tokyo)

24pA-1 [Invited] ULTRA-FAST ALL OPTICAL SWITCHING IN SPINTRONIC DEVICES

J. Gorchon, T. Hauet, M. Hehn, J. Hohlfeld, J. Lin, G. Malinowski, °S. Mangin (Univ. de Lorraine)

24pA-2 Nonlinear microwave scattering by permeability time-varying metamaterials

°T. Kodama[1], T. Chiba[1], N. Kikuchi[2], S. Okamoto[1], S. Ohno[1], S. Tomita[1] ([1]Tohoku Univ., [2]Akita Univ.)

24pA-3 All-optical helicity-dependent switching in magneto-plasmonic nanostructures

°Y. Le Guen[1, 2], J. Hohlfeld[1], M. Hehn[1], S. Mangin[1],, S. Van Dijken[2] ([1]IJL, [2]Aalto)

24pA-4 Ultrafast excitation of standing and propagating exchange spin waves in nanophotonic structures

°V. I. Belotelov, D. M. Krichevsky, S. I. Lutsenko, A. E. Bezmenova (Moscow State Univ.)

24pA-5 Ultrafast spin dynamics induced by circularly polarized hard x-ray pulses in a Pt/Co/Pt multilayer

° K. T. Yamada[1], R. Kobayashi[2], I. Sugiura[3], Y. Kubota[4, 5], Y. Akiyama[2, 4], S. Sasakura[6], A. Gocho[6], K. Takemura[2, 4], S. Mochizuki[1], S. Takahashi[1], T. Ohkochi[4, 5, 6], I. Matsuda[7], T. Ono[3, 8], T. Togashi[4, 5], Y. Tanaka[6], M. Suzuki[2, 4] ([1]Science Tokyo, [2]Kwansei Gakuin, [3]ICR, Kyoto Univ., [4]RIKEN, [5]JASRI/SPring-8, [6]Univ. Hyogo, [7]ISSP, Univ. of Tokyo, [8]CSRN, Kyoto Univ.)

Awards Ceremony & Closing Ceremony **15:30 〜16:30**

MIGAKU Award ceremony

Closing remark

J.R. Jeong (Chungnam National Univ.)

Apr. 24/Room B

Unique magnetic phenomena in 2D magnetic layers **9:00 〜10:30**

Chair: T. Miyamachi (Nagoya Univ.), W. Wulf (KIT)

24aB-1 [Invited] Phasons and magnon-polarons in 2D magnetic layers

°W. Wulfhekel (KIT)

24aB-2 Withdrawn

24aB-3 Moduation of the size of magnetic skyrmions in a van der Waals ferromagnet Fe_3GaTe_2 via proton irradiation

° Y. Ji[1], S. Yang[2], H. Ahn[3], K. Moon[2], M. Im[4], J. Lee[5], S. Park[5], C. Lee[3], K. Kim[1], C. Hwang[2] ([1]Korea Advanced Institute of Science and Technology, [2]Korea Research Institute of Standards and Science, [3]Sungkyunkwan University, [4]Lawrence Berkeley National Laboratory, [5]Korea Basic Science Institute)

24aB-4 Hall voltage distributions in two-dimensional materials

°K. Kim[1, 2], T. Park[2], K. Kim[3], S. Kim[1] ([1]University of Ulsan, [2]KIST, [3]Yonsei University)

Novel magnetic materials **11:00 〜12:15**

Chair: T. Ideue (Univ. of Tokyo), J. Huang(NCKU)

24aB-5 [Invited] Nonlinear optical responses in symmetry-controlled two-dimensional van der Waals magnets

°T. Ideue (Univ. of Tokyo)

24aB-6 [Invited] Magnetism in biomass - derived graphenic carbon

° D. Darminto[1], R. Asih[1], F. Astuti[1], M. A. Baqiya[1], D. Ristiyani[1], A. J. Nenohai[1], D. P. Sari[2], H. Nakajima[3], Y. Koike[4], I. Watanabe[5] ([1]Institut Teknologi Sepuluh Nopember, [2]Shibaura Institute of Technology, [3]Synchrotron Light Research Institute, [4]Tohoku University, [5]RIKEN Nishina Center)

24aB-7 Enhanced field-free current-induced magnetization switching by two-dimensional metastable MXene

°P. Kumar[1], H. Abe[2], S. Isogami[1] ([1]NIMS, [2]KEK)

2D magnetic materials and altermagnetism **13:30 〜15:00**

Chair: J. Okabayashi (Univ. of Tokyo), S. Ahn (POSTEC)

24pB-1 Effect of thermal magnetization fluctuation on geometrically constrained magnetic domain wall at the ferromagnetic nanowire

°S. Ahn (POSTECH)

24pB-2 Large MCD and strong spin polarization in nanoscale Cr_2Te_3

T. Huang[1], °J. A. Huang[1], H. Hsu[2], H. Wu[1], T. Chang[1] ([1]NCKU, [2]NPTU)

24pB-3 Atomic-scale magnetic doping of monolayer stanene by revealing Kondo effect from self-assembled spin entities

°N. Kumar[1], Y. Lan[1], Y. Lin[1], C. Chen[1], T. Lin[1], H. Jeng[1, 2, 3, 4], P. Chang[1], P. Hsu[1, 2] ([1]Department of Physics, National Tsing Hua University, Hsinchu 300044, Taiwan, [2]Center for Quantum Technology, National Tsing Hua University, Hsinchu 300044, Taiwan, [3]Physics Division, National Center for Theoretical Sciences, Taipei 10617, Taiwan, [4]Institute of Physics, Academia Sinica, Taipei 11529, Taiwan)

24pB-4 giant spin seebeck and piezoelectricity of 2D V2SeTeO altermagnet

D. Besserga, A. Ullah, °J. Hong (Pukyong National University)

24pB-5 Visualizing Strain-Induced Noncollinear Spin Textures in Mn Atomic Bilayer on Ag(111)

°C. Chen[1], T. Drevelow[2], Y. Lin[1], Y. Chen[1], T. Cheng[1], Y. Lin[1], S. Heinze[2], P. Hsu[1] ([1]Natioanl Tsing Hua University, [2]University of Kiel)

24pB-6 Detecting Altermagnetism in RuO_2 by Angular-Dependent X-ray Magnetic Linear Dichroism

°J. Okabayashi[1], Z. Wen[2], Y. Miura[3], H. Sukegawa[2], S. Mitani[2] ([1]Univ. Tokyo, [2]NIMS, [3]Kyoto Tech.)

Apr. 24/Room C

Magnetic tunneling phenomena **9:00 〜9:45**

Chair: G. Mihajlovic (Western Digital), M. Oogane (Tohoku Univ.)

24aC-1 Spin transfer torque switching in double magnetic tunnel junctions based on dual MgO layers

°G. Mihajlovic, W. Jung, R. Chopdekar, J. Lille, M. K. Gorbis (Western Digital Corporation)

24aC-2 Structural stability and perpendicular magnetocrystalline anisotropy in Co layers on buckled and planar h-BN structures

°D. P. Hastuti, Y. Kitaoka, H. Imamura (AIST)

24aC-3 Theoretical study on the effect of shape anisotropy on switching voltage of voltage-controlled MRAM

°S. Miyazaki[1, 2], H. Arai[2], H. Imamura[1, 2], Y. Yasukawa[1] ([1]Chiba Inst Tech, [2]AIST)

Soft magnetic materials **10:15 〜12:00**

Chair: J. Jeong (Korea Institute of Materials Science), Y. Tomita (Daido Steel)

24aC-4 [Invited] Effect of co-added transition metal elements on the glass forming ability and soft magnetic properties of high-M_s nanocrystalline alloys

°J. Jeong, H. Im, S. An, K. Kim, S. Yang (Korea Institute of Materials Science)

24aC-5 [Invited] Rapidly annealed high-Bs FeCo-based nanocrystalline soft magnetic alloys for high-temperature applications

°I. Skorvanek[1], B. Kunca[1], J. Marcin[1], P. Svec[2] ([1]IEP SAS, Kosice, [2]IP SAS, Bratislava)

24aC-6 Analysis of complex permeability for Permalloy foil

°Y. Tomita[1], T. Ogasawara[2], H. Takabayashi[1], T. Iriyama[1] ([1]Daido Steel, [2]National Inst. Tech.)

24aC-7 Effect of Yttrium addition on magnetic softness and dynamic magnetic properties of $(Fe_{71}Ga_{29})_{1-x}Y_x$ films

°S. Ajia, R. Nishina, T. Miyazaki, S. Muroga, Y. Endo (Tohoku Univ.)

24aC-8 Sweep Rate Dependency of Permeability and Coercivity in DC B-H Measurements

°S. Hashimoto, T. Morita, H. Takabayashi (Daido Steel)

Hard magnetic materials Ⅲ **13:00 〜14:00**

Chair: W. Yamaguchi (AIST), T. Hasegawa (Akita Univ.)

24pC-1 $Sm_2Fe_{17}N_3$ powder for heat-resistant bonded magnets

°W. Yamaguchi, A. Hosokawa, K. Takagi, Y. Hirayama (AIST)

24pC-2 Evaluation of magnetic properties of mechanically ground $SmCo_5$ fine powder

°K. Park, Y. Hirayama, J. Wang (AIST)

24pC-3 Evaluation of equilibrium oxygen partial pressure of W-type ferrite solid-solution state $SrCo_xFe_{18-x}O_{27}$ ($0 < x < 2$)
°S. Nakai, T. Waki, Y. Tabata, H. Nakamura (Kyoto Univ.)

24pC-4 Phase diagrams and magnetic properties of Fe-Co-X and Fe-Co-V-X (X = B, C, N, O) films
°T. Hasegawa, C. Shirai, T. Nishikawa, T. Osanai (Akita Univ.)

Ferrites: from fundamental to applications 14:15 〜15:15

Chair: H. Nakamura (Kyoto Univ.), K. Park (AIST)

24pC-5 Influence of Partial Substitution of Mn on Magnetostrictive Properties of $Cu_{0.5}Co_{0.5}Fe_2O_4$
°M. Hisamatsu[1], S. Kosugi[1], K. Suzuki[1], Y. Ohishi[1], S. Seino[1], H. Muta[1], T. Nakagawa[1], S. Fujieda[2]
([1]Osaka Univ., [2]Shimane Univ.)

24pC-6 Oxygen potential controlled hexagonal ferrites
°H. Nakamura, T. Waki, S. Nakai, M. Ade, Y. Tabata (Kyoto University)

24pC-7 Photocatalytic Degradation Enhancement of Rhodamin B using Magnetically Separable and Reusable MnFe2O4/rGO Nanocomposites Green-Synthesized Utilizing Plant Leaf Extract
°K. Kurnia[1], N. P. Rini[1], D. L. Puspitarum[1], E. K. Sari[1], N. I. Istiqomah[1], L. J. Mahardhika[1], T. Kato[2, 3], D. Oshima[3], A. D. Nugraheni[1], E. Suharyadi[1] ([1]Department of Physics, Universitas Gadjah Mada, [2]Institute of Materials and Systems for Sustainability, [3]Department of Electronics, Nagoya University)

24pC-8 Photodegradation of doxycycline antibiotic using magnetically separable and reusable Fe3O4/Chitosan nanocomposites green-synthesized utilizing moringa oleifera extract
°S. Sudarmono[1, 2], E. Suharyadi[1], N. I. Istiqomah[1], L. J. Mahardhika[1], C. Chotimah[1]
([1]Universitas Gadjah Mada, [2]Universitas Cenderawasih)

Apr. 24/Room D

Advances in interplay between superconductivity and magnetism
9:00 〜10:45

Chair: K. Jeon (Chung-Ang Univ.), T. Yamashita (Tohoku Univ.)

24aD-1 [Invited] Zero-field polarity-reversible Josephson supercurrent non-reciprocity and non-volatile anomalous phase-shift
°K. Jeon (Department of Physics, Chung-Ang University (CAU), Seoul 06974, Republic of Korea)

24aD-2 [Invited] Pure spin current transport and spin-triplet superconductors: Insights and Advances
°S. Huang (National Taiwan University)

24aD-3 Nb/GdN/Nb Josephson junction for future superconducting spintronics and quantum computing
°F. Li[1], W. F. Holmes-Hewett[2], J. Miller[2], S. Granvile[2], B. Ruck[2], M. Tanaka[1], A. Fujimaki[1]
([1]Nagoya University, [2]Victoria University of Wellington)

24aD-4 [Invited] Superconducting spintronics for scalable superconducting flux qubits
°T. Yamashita (Tohoku Univ.)

Spin related phenomena in functional materials Ⅰ 11:00 〜12:30

Chair: S. Karube (Kyoto Univ.), H. Koo (KIST)

24aD-5 [Invited] Symmetry manipulation and spin conversion
°J. Yoo (Unsan National Institute of Science and Technology)

24aD-6 [Invited] Topological Surface States in Alpha-Sn
°M. Wu (Northeastern University)

24aD-7 Spin current enhancement by a WSe_2 spin sink
°Y. Chu[1], K. Chiu[1], M. Lin[1, 2, 3] ([1]National Taiwan University, [2]Institute of Atomic and Molecular Sciences, Academia Sinica, [3]Research Center for Applied Sciences, Academia Sinica)

24aD-8 Observation of unconventional spin current in altermagnetic CrSb
°C. Tseng, S. Karube, H. Narita, R. Hisatomi, Y. Shiota, D. Kan, Y. Shimakawa, T. Ono (Kyoto Univ.)

Spin related phenomena in functional materials Ⅱ **13:30 〜15:15**

Chair: Y. Shiota (Kyoto Univ.), J. Yoo (Ulsan National Institute of Science and Technology)

24pD-1 [Invited] Tailoring Spin-Orbit Torque Efficiency via Facilitating Global Néel Order in W/NiO/CoFeB Trilayer

H. Chang[1], K. Chi[2], Y. Lin[1], Y. Lai[1], Y. Huang[1], C. Pai[2], °C. Yang[1]

([1]National Yang Ming Chiao Tung University, [2]National Taiwan University)

24pD-2 Observation of anisotropy of orbital Hall effect in an epitaxial titanium

°S. Karube[1], Y. Yahagi[2], H. Narita[1], R. Hisatomi[1], Y. Shiota[1], T. Ono[1] ([1]Kyoto Univ., [2]NEC)

24pD-3 Spin-torque efficiency of Si-Al alloy films with varying compositional ratios and deposition methods

°H. Nakayama[1], T. Horaguchi[2], K. Yamanoi[1], Y. Nozaki[1] ([1]Keio Univ., [2]Fukuoka Univ.)

24pD-4 Reciprocity of charge-spin conversion in a quantum well channel

°H. Koo[1, 2], S. Kim[1, 2], J. Lee[1, 2], W. Choi[1, 2] ([1]KIST, [2]Korea University)

24pD-5 [Invited] Multiferroic heterostructured devices for energy efficient electronics and biomedical applications

°J. Hong (Hubei Univ. Tech.)

Apr. 24/Room E

Strain-induced related phenomena **9:45 〜10:30**

Chair: J. Okabayashi (Univ. of Tokyo), K. Toyoki (Osaka Univ.)

24aE-1 Elastic anomaly and strain-induced pseudo-gap modulation in semimetallic antiferromagnet $Cr_{0.8}Al_{0.2}$ thin film

°K. Toyoki, Y. Tsujimoto, Y. Shiratsuchi, R. Nakatani (Osaka Univ.)

24aE-2 Elastic anomaly and pseudo-gap formation in antiferromagnetic semimetal $(Cr_{1-y}Fe_y)_{1-x}Al_x$ thin films

°F. Kamimura[1], T. Matsumura[1], Y. Tsujimoto[1], K. Toyoki[1, 2, 3], Y. Shiratsuchi[1, 2, 3], R. Nakatani[1, 2, 3]

([1]Osaka Univ., [2]CSRN, [3]OTRI)

24aE-3 Microscopic origin of magnetostriction in Fe_3Ga studied by operando XMCD and Mössbauer spectroscopies

°J. Okabayashi[1], T. Usami[2], S. Sakai[3], K. Fujiwara[3], Y. Kobayashi[4], T. Mitsui[3], K. Hamaya[2]

([1]Univ. of Tokyo, [2]Osaka Univ., [3]QST, [4]Kyoto Univ.)

Novel magnetic phenomena **11:00 〜12:00**

Chair: S. Li (QST), J. Lin (National Yang Ming Chiao Tung Univ.)

24aE-4 [Invited] Observation of spin-triplet superconductivity in $CoSi_2/TiSi_2$ heterojunctions

S. Chiu[2], S. Yeh[1], V. Mishra[3], F. Zhang[3], S. Kirchner[1], °J. Lin[1]

([1]National Yang Ming Chiao Tung University, [2]Fu Jen Catholic University, [3]University of Chinese Academy of Sciences)

24aE-5 [Invited] Identification of Many-body Entanglement in Quantum Magnetism

°E. Moon (KAIST)

Electrical manipulation of magnetic properties **13:00 〜14:30**

Chair: T. Nozaki (AIST), J. S. Tsay (National Taiwan Normal Univ.)

24pE-1 [Invited] Large voltage-controlled magnetic anisotropy effect in magnetic tunnel junctions prepared by cryogenic temperature deposition

°T. Nozaki[1], T. Ichinose[1], T. Yamamoto[1], J. Uzuhashi[2], T. Nozaki[1], H. Nakayama[1], A. Sugihara[1], M. Konoto[1], K. Yakushiji[1], T. Ohkubo[2], S. Yuasa[1] ([1]AIST, [2]NIMS)

24pE-2 Electric field control of magnetic anisotropy for oriented Co/graphene and application as an inductor with field tunability

C. Chang[2], P. Jiang[2], Y. Chow[2], T. Yang[2], °J. Tsay[1]

([1]National Taiwan Normal University, [2]Minghsin University of Science and Technology)

24pE-3 Voltage Control of Perpendicular Anisotropy with High-Endurance Ferroelectric Hf1-xZrxO2 Gate Oxide

°J. Chen, Y. Lin, K. Yeh, T. Yang, Y. Tseng (NYCU)

24pE-4 Votage induced bi-polar AFM spin reversal using magnetoelectric effect in $Pt/Cr_2O_3/V_2O_3/Pt$ epitaxial films

°N. Murayama[1], H. Sameshima[1], K. Ujimoto[1], Y. Matsumoto[1], K. Toyoki[1, 2, 3], R. Nakatani[1, 2, 3], Y. Shiratsuchi[1, 2, 3]

([1]Osaka Univ., [2]CSRN, [3]OTRI)

24pE-5 Low-voltage AFM spin reversal in Pt/Cr2O3/Ru/Pt epitaxial thin layer

°Y. Matsumoto[1], H. Sameshima[1], N. Murayama[1], K. Toyoki[1, 2, 3], R. Nakatani[1, 2, 3], Y. Shiratsuchi[1, 2, 3]

([1]Osaka Univ., [2]CRSN, [3]OTRI)

Apr. 24/Poster Room

Poster session Ⅵ

10:30 〜 13:30

24aPS-1 Study on a Low Iron Loss Motor Using Amorphous Ribbon Cut Cores
°T. Saito, Y. Yoshida, S. Sakurai, K. Tajima (Akita Univ.)

24aPS-2 A Study on LSPM high efficiency design considering initial operation characteristics
°J. Lee[1], D. Jung[2], K. Lee[1] ([1]Korea Electronics Technology Institute, [2]Andong National University)

24aPS-3 A Study on Ac Loss Analysis According to Stator Winding Method and High-Speed Design
°J. Lee[1], D. Jung[2], K. Lee[1] ([1]Korea Electronics Technology Institute, [2]Andong National University)

24aPS-4 Characteristic Analysis of an Outer Rotor Type Permanent Magnet Synchronous Motor using Subdomain Method
°M. Koo[1], H. Shine[2] ([1]Purpose Built Mobility Group, KITECH, [2]Specialized Machinery and Robotics Group, KITECH)

24aPS-5 Prediction of annealing temperature influence for magnetic alloy ribbon using random forest regression trained with process information
°S. Muroga[1], T. Takasu[1], S. Matsumoto[1], S. Ajia[1], R. Umetsu[1], S. Mikami[2], T. Hiraki[2], Y. Endo[1] ([1]Tohoku Univ., [2]Toho Zinc)

24aPS-6 Influence of annealing temperature and compaction pressure on magnetic properties of dust cores composed of iron powders
°Y. Kodama, S. Ajia, T. Miyazaki, S. Muroga, Y. Endo (Tohoku Univ.)

24aPS-7 Numerical analysis of magnetization characteristics in curved chain magnetic nanoparticles
°H. Zhang, Y. Sun, H. Wang, T. Sasayama, T. Yoshida (Kyushu Univ.)

24aPS-8 Synthesis and Evaluation of Smart Magnetic Nanocarriers Incorporating Polyphenols for Targeted Breast Cancer Intervention
°M. Mohammed Mustafa, K. Natarajan, S. Palanisamy, L. Subbiah (Anna University)

24aPS-9 Highly sensitive detection of sub pT magnetic field in nondestructive inspection using magnetoresistive sensor
°Y. Kono[1], H. Ahn[1], A. Tanaka[1], S. B. Trisnanto[1], T. Kasajima[2], T. Shibuya[2], Y. Takemura[1] ([1]Yokohama National Univ., [2]TDK)

24aPS-10 Detection of magnetic nanoparticles by using magnetoresistive sensor coupled with induction coil
°K. Suzaki[1], S. Nabeta[1], S. B. Trisnanto[1], T. Kasajima[2], T. Shibuya[2], Y. Takemura[1] ([1]Yokohama National Univ., [2]TDK)

24aPS-11 Development of a Drying Method for Magnetic Nanoparticle Dispersions with Enhanced Re-dispersibility
°S. Seino[1], K. Nishigaki[1], A. Tanaka[2], T. Sakane[2], T. Kiwa[3], M. Washino[4], T. Nakagawa[1] ([1]Osaka Univ., [2]Kobe Pharm. Univ., [3]Okayama Univ., [4]Mitsubishi Electric Corp.)

24aPS-12 Effect of preparation method and size on magnetic properties of $Mn_{0.6}Zn_{0.4}Fe_2O_4$ ferrite
°E. Bekhbaatar, S. Kobayashi, H. Li (Iwate Univ.)

24aPS-13 Design and optimization of magnetically activated letrozole nanoliposomes for targeted breast cancer therapy
°K. N, M. R G, A. R, L. S, S. P (Anna University - BIT Campus)

24aPS-14 Magnetic Lipidome-Infused Sirolimus: A Targeted Ferroptosis-Driven Approach for Breast Cancer Therapy
°M. Ramasamy Govindaraj, K. Natarajan, K. Ganesan, S. Palanisamy, L. Subbiah (Anna University)

24aPS-15 Blue Light-induced Radical Pairs in Flavin-Tryptophan Dyads in the Solid States
°Y. Oka, K. Inoue (Hiroshima Univ.)

24aPS-16 Development of superparamagnetic nanocluster probes for the realization of a multiplex immunoassay using magnetic particle spectroscopy
°S. Shimizu[1], A. Sakai[1], M. Takahashi[1], T. Yoshida[2], S. Maenosono[1] ([1]JAIST, [2]Dept. Electrical Eng., Kyusyu Univ.)

24aPS-17 Improvement of absorption force of magnetic attachment by utilizing stainless steel magnets
°C. Mishima, T. Mitsunaga, Y. Honkura (Magnedesign)

IcAUMS 2025 AUTHOR INDEX

(L)

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(O)

(T)

(Z)

Pulse Field Magnetometry

TPM-2-08s25

Sample size
max ϕ10 mm

Magnetic field
max 8 Tesla

Measurement temperature
RT – 200degC

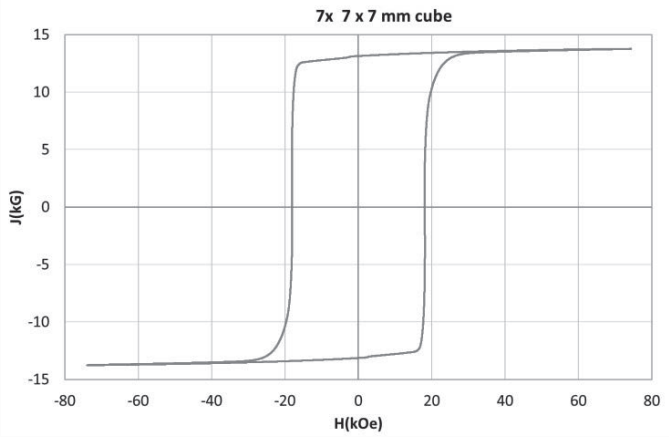
Achieving 3σ/Ave.0.2%※1

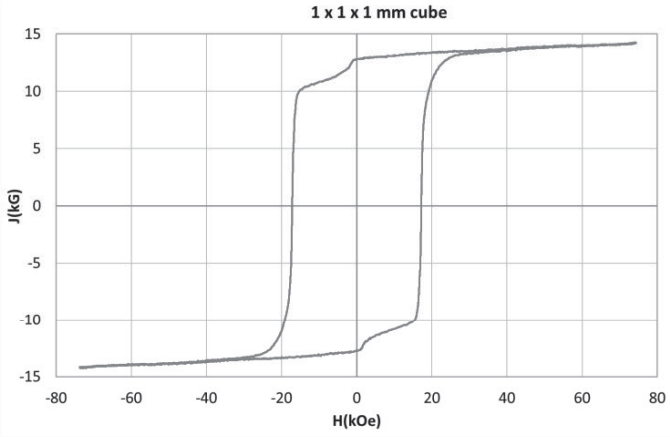
Eddy current correction has also been established※2

※1 Refer IEEJ MAG-18-088

※2 Refer IEEJ MAG-07-11

Measurement examples of NdFeB(sintered)





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