



논문개요집

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2022년 한국자기학회 하계학술대회

2022 KMS Summer Conference

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일시 2022. 5. 25(수) ~ 27(금)

장소 소노캄제주

주최 한국자기학회

후원   한국재료연구원  파워유닛스마트제조센터

Digests of the 2022 KMS Summer Conference
The Korean Magnetism Society

사단법인 한국자기학회

2022년 한국자기학회 하계학술대회

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후원 **KCFST** 한국과학기술단체총연합회 **KIMS** 한국재료연구원 **epu** 파워유닛스마트제조센터

“본 사업은 기획재정부의 복권기금 및 과학기술정보통신부의 과학기술진흥기금으로 추진되어 사회적 가치 실현과 국가 과학기술 발전에 기여합니다”



2022년 한국자기학회 하계학술대회 종합프로그램

5/25(수)	다이아몬드	그랜드볼룸		사파이어	
	참가자 등록 (13:00~)				
		Poster Session (13:00~18:00)		Symposium 1 양자자성 (13:30~15:45)	
	Tutorial Session 실전 영어과학논문 작성법 (16:00~18:00)	Poster Discussion (18:00~19:00)			
EAST TOWER 1F EAST TOWER 2F WEST TOWER 6F					
5/26(목)	다이아몬드	에메랄드	루비	사파이어	오팔1
오전	참가자 등록 (08:30~)				
	Symposium2 자화동역학 (09:00~11:10)	Symposium3 영구자석&전자기 에너지변환 (09:00~11:50)	Symposium4 자기센서 및 마이크로소자 (09:00~11:50)	Symposium 1 양자자성 (09:00~12:10)	Session1 구두발표 I (09:00~10:40)
					Symposium5 뫼스바우어 (10:40~12:00)
점심	점심 (12:00~14:00)				
오후	Symposium6 스핀트로닉스 (14:00~16:30)	Symposium3 영구자석&전자기 에너지변환 (14:00~17:40)	Symposium7 연자성 (14:00~17:50)	Symposium 1 양자자성 (14:30~17:15)	Symposium8 저차원자성 (14:00~16:10)
	Session2 구두발표 II (16:40~18:00)				Session3 구두발표 III (16:20~17:40)
임시총회	임시총회 및 시상식 (다이아몬드) (18:00~19:00)				
만찬	만찬 (그랜드볼룸) (19:00~)				
5/27(금)	다이아몬드	에메랄드	루비	사파이어	오팔1
	참가자 등록 (08:30~)				
	Session4 신진과학자 콜로키움 (09:00~11:30)	Symposium9 의과학자기 (09:00~12:10)	Symposium10 바이오자성 (09:00~10:50)	Symposium 1 양자자성 (09:00~12:15)	Symposium11 이론 및 계산자기학 (09:00~10:50)
	Session5 구두발표Ⅳ (11:40~12:20)				Session6 구두발표Ⅴ (11:00~12:00)
폐회	포스터 시상식 및 폐회 (다이아몬드) (12:30~13:00)				

2022년 한국자기학회 하계학술대회 일정표

5월 25일[수]

시간	프로그램
13:00 ~	참가자 등록
13:00 ~ 18:00	포스터발표 [1] Electro-Magnetic Energy Conversion [2] Bio-Convergence Magnetism [3] Magnetism in Medical Science [4] Mössbauer Magnetism [5] Spintronics [6] Magnetization Dynamics [7] Permanent Magnetism [8] Soft Magnetism [9] Theory and Computational Magnetism [10] Quantum Magnetism (Oxide Magnetism) [11] Low Dimensional Magnetism [12] Magnetic Sensors and Magnetic Micro-Devices [13] Others (그랜드볼룸)
Symposium 1 'Quantum Magnetism' (사파이어)	
좌장: 문은국(KAIST)	
13:30 ~ 14:00	초S-1-1. 한명준(KAIST)
14:00 ~ 14:30	초S-1-2. 박문집(IBS)
14:30 ~ 14:45	Coffee Break
14:45 ~ 15:15	초S-1-3. 노태원(서울대)
15:15 ~ 15:45	초S-1-4. 윤상문(가천대)
Tutorial Session '대학원생 진행세션' (다이아몬드)	
좌장: 성민경(숙명여대)	
16:00 ~ 18:00	T-1. 실전 영어과학논문 작성법 김영근(고려대)
18:00 ~ 19:00	포스터 발표 Discussion (그랜드볼룸)
좌장: 김상훈(울산대), 박지훈(KIMS)	



5월 26일[목] 오전

시간	프로그램									
08:30 ~	참가자 등록									
	Symposium 2 'Magnetization Dynamics' (다이아몬드)		Symposium 3 'Permanent Magnetism' & 'Electro-Magnetic Energy Conversion' 공동세션 (에메랄드)		Symposium 4 'Magnetic Sensors and Micro-Devices' (루비)		Symposium 1 'Quantum Magnetism' (사파이어)		Session 1 구두발표 I 'Spintronics I' (오판 I)	
	좌장: 김준서(DGIST)		좌장: 이우영(연세대)		좌장: 윤석수(안동대)		좌장: 옥종목(부산대)		좌장: 박정민(KAIST)	
09:00 09:20	초S-2-1. 김경환(KIST)		09:00 09:20	초S-3-1. 김진배(LG전자)	09:00 09:20	초S-4-1. 임병화(DGIST)	09:00 09:30	초S-1-5. 김기훈(서울대)	09:00 09:20	O-1-1. 웨이꾸인안(울산대)
09:20 09:40	초S-2-2. 최경민(성균관대)		09:20 09:40	초S-3-2. 안종빈(㈜다이아씨)	09:20 09:40	초S-4-2. 김경원(한국전자기술연구원)	09:30 10:00	초S-1-6. 김영욱(DGIST)	09:20 09:40	O-1-2. 도티나(이화여대)
09:40 10:00	초S-2-3. 문경웅(KRISS)		09:40 10:00	초S-3-3. 배경훈(㈜성림첨단산업)	09:40 10:00	초S-4-3. 박덕근(㈜아이피트)	10:00 10:30	초S-1-7. 오윤석(UNIST)	09:40 10:00	O-1-3. 김종혁(연세대)
10:00 10:10	Coffee Break		10:00 10:20	초S-3-4. 배석(LG이노텍)	10:00 10:20	초S-4-4. 이상석(상지대)	10:30 10:45	Coffee Break	10:00 10:20	O-1-4. Phuoc Cao Van(충남대)
10:10 10:30	초S-2-4. 이수길(KAIST)		10:20 10:30	Coffee Break	10:20 10:30	Coffee Break	10:45 11:15	초S-1-8. 황찬용(KRISS)	Symposium 5 '뫼스바우어 자성' (오판 I)	
			좌장: 최장영(충남대)		좌장: 박덕근(㈜아이피트)					
10:30 10:50	초S-2-5. 김창수(KRISS)		10:30 10:50	초S-3-5. 윤명환(한국전자기술연구원)	10:30 10:50	초S-4-5. 김장열(한국전자통신연구원)	11:15 11:45	초S-1-9. 박성균(부산대)	10:40 11:00	초S-5-1. 최현경(국민대)
			10:50 11:10	초S-3-6. 송인수(모아소프트)	10:50 11:10	초S-4-6. 윤석수(안동대)			11:00 11:20	초S-5-2. 지운성(한국에너지기술연구원)
10:50 11:10	초S-2-6. 이수범(DGIST)		11:10 11:30	초S-3-7. 김현수(한양대)	11:10 11:30	초S-4-7. 이남영(디엔제이테크)	11:45 12:10	초S-1-10. 백승호(창원대)	11:20 11:40	초S-5-3. 천동현(한국에너지기술연구원)
			11:30 11:50	초S-3-8. 배예나(한양대)	11:30 11:50	초S-4-8. 손대락(㈜센서피아)			11:40 12:00	초S-5-4. 이재기(한국원자력연구원)
12:00 14:00	점심식사									

5월 26일[목] 오후

시간		프로그램									
Symposium 6 '스핀트로닉스' (다이아몬드)		Symposium 3 'Permanent Magnetics' & 'Electro-Magnetic Energy Conversion' 공동세션 (에메랄드)		Symposium 7 'Soft Magnetics' (루비)		Symposium 1 'Quantum Magnetism' (사파이어)		Symposium 8 'Low Dimensional Magnetics' (오팔 I)			
좌장: 이경진(KAIST)		좌장: 이정구(KIMS)		좌장: 임혜인(숙명여대)		좌장: 이성빈(KAIST)		좌장: 유정우(UNIST)			
14:00 14:20	초S-6-1. 김상국(서울대)	14:00 14:20	초S-3-9. 박송이(LG전자)	14:00 14:20	초S-7-1. 강영민(한국교통대)	14:30 15:00	초S-1-11. 조길영(포항공대)	14:00 14:20	초S-8-1. 진호섭(UNIST)		
14:20 14:40	초S-6-2. 김갑진(KAIST)	14:20 14:40	초S-3-10. 김태훈(KIMS)	14:20 14:40	초S-7-2. 권영태(KIMS)			14:20 14:40	초S-8-2. 김상훈(울산대)		
14:40 15:00	초S-6-3. 정수용(KRISS)	14:40 15:00	초S-3-11. 박지훈(KIMS)	14:40 15:00	초S-7-3. 정재원(KIMS)			14:40 15:00	초S-8-3. 구현철(KIST)		
15:00 15:20	초S-6-4. 안경모(KRISS)	15:00 15:10	Coffee Break	15:00 15:20	초S-7-4. 남충희(한남대)	15:00 15:30	초S-1-12. 김세권(KAIST)	15:00 15:10	Coffee Break		
15:20 15:30	Coffee Break	좌장: 유상임(서울대)		15:20 15:40	초S-7-5. 이태경(쑤창성)			15:10 15:30	초S-8-4. 진미진(IFS)		
		15:10 15:30	초S-3-12. 김태훈(전남대)					15:30 15:50	초S-8-5. 최태영(이화여대)		
좌장: 박병국(KAIST)		15:30 15:50	초S-3-13. 심지훈(포항공대)	15:40 15:50	Coffee Break	15:30 15:45	Coffee Break	15:30 15:50	초S-8-6. 이동현(고려대)		
15:30 15:50	초S-6-5. 김영훈(한양대)	15:50 16:10	초S-3-14. 이재광(부산대)					15:50 16:10	초S-8-6. 이동현(고려대)		
15:50 16:10	초S-6-6. 이규섭(싱가폴국립대)	16:10 16:20	Coffee Break	좌장: 정재원(KIMS)		15:45 16:15	초S-1-13. 양찬호(KAIST)	Session 3 구두발표Ⅲ 'Low Dimensional Magnetics' / 'Magnetic Sensors and Micro-Devices' (오팔 I)			
16:10 16:30	초S-6-7. 박영진(마테리온 코리아(유))	좌장: 이정종(한국전자기술연구원)		15:50 16:10	초S-7-6. 황득규(쑤현대모비스)						
Session 2 구두발표Ⅱ 'SpintronicsⅡ' / 'Magnetization Dynamics' (다이아몬드)		16:20 16:40	초S-3-15. 이훈기(충남대)	16:10 16:30	초S-7-7. 장민선(KIMS)	16:15 16:45	초S-1-14. 옥종목(부산대)				
		16:40 17:00	초S-3-16. 김수민(충남대)	16:30 16:50	초S-7-8. 윤준철(쑤현대제철)						
좌장: 최경민(성균관대)		16:40 17:00	초S-3-17. 강동우(계명대)	16:50 17:10	초S-7-9. 박연병(포항산업과학연구원)	16:45 17:15	초S-1-15. 박재훈(포항공대)	16:20 16:40	O-3-1. 이관(경성대)		
16:40 17:00	O-2-1. 최영관(성균관대)	17:00 17:20	초S-3-18. 이성구(동아대)	17:10 17:30	초S-7-10. 최용석(제닉스)			16:40 17:00	O-3-2. 프롤로이 타란다스 (DGIST)		
17:00 17:20	O-2-2. 박규영(서울대)	17:20 17:40	초S-3-18. 이성구(동아대)	17:30 17:50	초S-7-11. 김원호(가천대)	17:00 17:20	O-3-3. 김은애(충남대)				
17:20 17:40	O-2-3. 서상일(서강대)	17:40 18:00				17:20 17:40	O-3-4. 이용호(KRISS)				
17:40 18:00	O-1-4. 이정규(고려대)										
18:00 19:00	한국자기학회 임시총회 및 시상식 (다이아몬드)										
19:00 ~	만찬 (그랜드볼룸)										

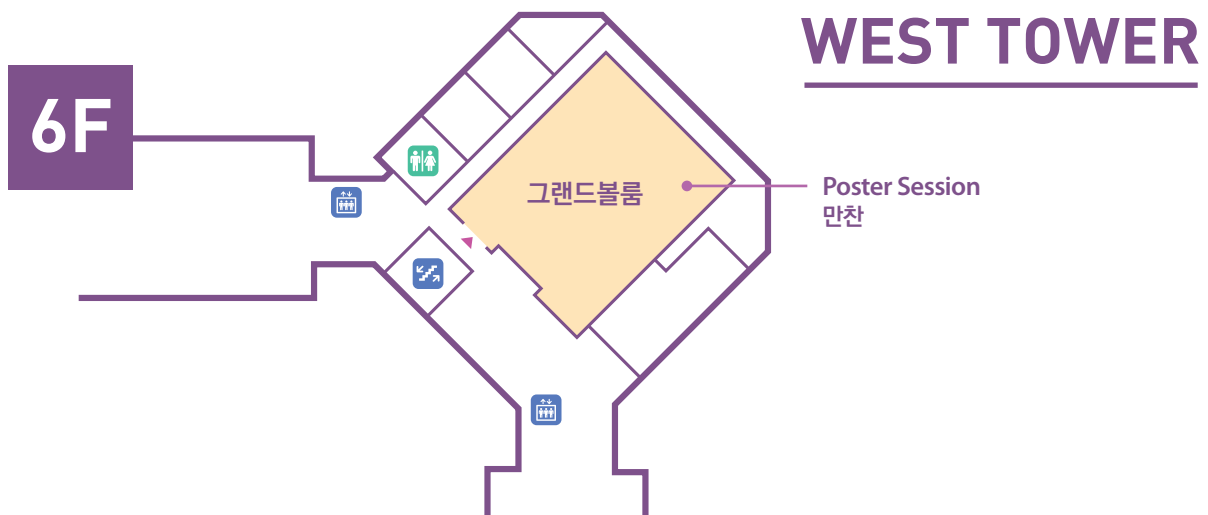
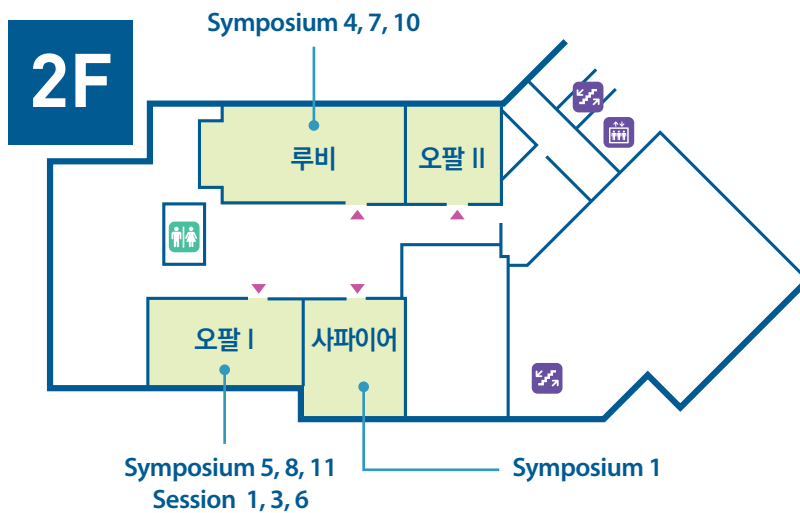
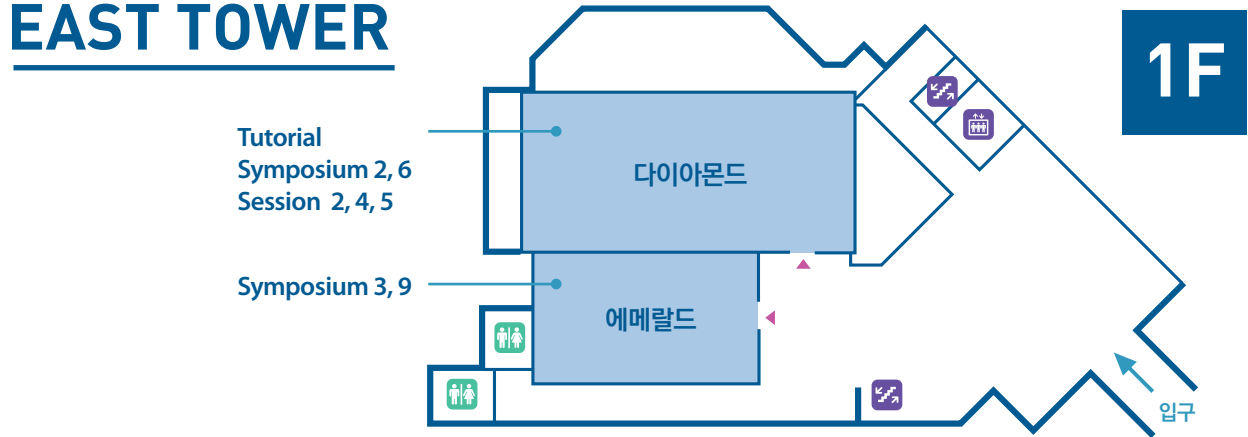


5월 27일[금]

시간		프로그램										
8:30 ~		참가자 등록										
Session 4 '신진과학자 콜로키움' (다이아몬드)			Symposium 9 'Magnetics in Medical Science' (에메랄드)			Symposium 10 'Bio-Convergence Magnetics' (루비)		Symposium 1 'Quantum Magnetism' (사파이어)		Symposium 11 '자기이론분과 심포지움' (오파 I)		
좌장: 김갑진(KAIST)			좌장: 안우상(울산의대)			좌장: 유천열(DGIST)		좌장: 손창희(UNIST)		좌장: 임성현(울산대)		
09:00 ~ 09:20	초O-4-1. 이수범(DGIST)	09:00 ~ 09:20	초S-9-1. 한동희(강원대)	09:00 ~ 09:20	초S-10-1. 이신범(DGIST)	09:00 ~ 09:30	초S-1-16. 박제근(서울대)	09:00 ~ 09:25	초S-11-1. 김흥식(강원대)			
09:20 ~ 09:40	초O-4-2. 이동준(KIST)	09:20 ~ 09:40	초S-9-2. 한기택(한국방사선진흥협회)			09:30 ~ 10:00	2.초S-1-17. 최광용(성균관대)	09:25 ~ 09:50	초S-11-2. 이관우(고려대)			
09:40 ~ 10:00	초O-4-3. 이진홍(KIST)	09:40 ~ 10:00	초S-9-3. 김호진(연세대)	09:20 ~ 09:40	초S-10-2. 이성원(DGIST)	10:00 ~ 10:30	초S-1-18. 이성빈(KAIST)	09:50 ~ 10:00	Coffee Break			
10:00 ~ 10:20	초O-4-4. 박정민(KAIST)	10:00 ~ 10:20	초S-9-4. 박장우(한국원자력의학원)			10:30 ~ 10:45	Coffee Break	10:00 ~ 10:25	초S-11-3. 김봉재(군산대)			
10:20 ~ 10:30	Coffee Break	10:20 ~ 10:40	초S-9-5. 오성훈(한빛테크놀로지)	09:40 ~ 09:50		10:30 ~ 10:45		Coffee Break	10:25 ~ 10:50	초S-11-4. 강창중(충남대)		
10:30 ~ 10:50	초O-4-5. Takayuki Shiino(KAIST)	10:40 ~ 10:50	Coffee Break				10:45 ~ 11:15		초S-1-19. 김재훈(연세대)	Session 6 구두발표 V 'Theory and Computational Magnetics' (오파 I)		
10:50 ~ 11:10	초O-4-6. 서준호(IBS)	10:50 ~ 11:10	초S-9-6. 이호범(서울아산병원)	09:50 ~ 10:10	초S-10-3. 오선종(한국기계연구원)	11:15 ~ 11:45	초S-1-20. 김재욱(한국원자력연구원)	좌장: 임성현(울산대)				
11:10 ~ 11:30	초O-4-7. 정승교(성균관대)	11:10 ~ 11:30	초S-9-7. 장지성(서울아산병원)					11:00 ~ 11:20	O-6-1. 브라 힘 마르 푸아(부경대)			
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행사장 배치도

EAST TOWER



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○ Session OS [Others]

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OS04	Poster	초전도 자기장발생장치의 자기차폐장치 설계 제작 191 손대락*, 류권상, 김병국
OS05	Poster	Synthesizing polycrystalline- $\text{Y}_3\text{Fe}_5\text{O}_{12}$ matrix with different sequences and observation of ϵ phase Fe_2O_3 192 H.-J. Ok*, M.-S. Jang and K.-S. Lee
OS06	Poster	Design and optimization of a high-performance alumina-based wire wound chip inductor for GHz frequency 194 Rachida Lamouri*, Minji Gu, Jinu Kim and Ki Hyeon Kim

5월 26일(목) 09:00~11:10

Symposium 2 ‘Magnetization Dynamics’

다이아몬드

✿ 좌 장 : 김준서(DGIST)

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초S-2-2	09:20	Spin generation driven by ultrafast phase-transition of FeRh 198 Kyuhe Kang, Tomoyasu Taniyama, Kyung-Jin Lee and Gyung-Min Choi*
초S-2-3	09:40	자성동역학의 단계적인 이해 및 자성나선도메인의 형성 199 Kyoung-Woong Moon*
초S-2-4	10:10	하드웨어 기반 보안기술을 위한 스핀트로닉 물리적 복제 불가능성 (physical unclonable function) 200 이수길*, 강재민, 김정목, 김남희, 이택현, 이성준, 한동현, 이상화, 이지성, 노수정, 이한샘, 권준현, 김갑진, 박병국
초S-2-5	10:30	X-선 강자성공명을 이용한 강자성/금속/강자성 삼층 구조에서의 약한 비접촉 상호작용 측정 201 김창수*, 김원동, 최원창, 문경웅, 김현중, 안경모, 홍정일, 김호영, 김영학, 박병규, 김재영, Z. Q. Qiu, 황찬용
초S-2-6	10:50	Synthetic Rashba Spin-Orbit Coupling in n-Si Metal-Oxide Semiconductor 202 Soobeom Lee ^{*†} , Hayato Koike, Minoru Goto, Shinji Miwa, Yoshishige Suzuki, Naoto Yamashita, Ei Shigematsu, Ryo Ohshima, Yuichiro Ando and Masashi Shiraishi

5월 26일(목) 09:00~11:50

Symposium 3 ‘Permanent Magnetics’ & ‘Electro-Magnetic Energy Conversion’ 공동세션

에메랄드

✿ 좌 장 : 이우영(연세대) / 최장영(충남대)

초S-3-1	09:00	Toward the Development of Permanent Magnets for Compressor Motor 207 Jin Bae Kim*
초S-3-2	09:20	열간-변형 Nd 영구자석 제조방법과 적용분야 208 안종빈*, 황진성, 방희련
초S-3-3	09:40	희토류 자원 무기화에 대응하기 위한 저희토함유 Nd계 소결자석 개발동향 및 제어방법 ... 209 배경훈*, 이상협, 김동환, 공군승
초S-3-4	10:00	MnBi마그넷과 페라이트 마그넷의 에어컨 Fan모터 적용 성능 비교 210 나현민*, 임현석, 이정기, 최광기, 배석, 박예지, 이주
초S-3-5	10:30	마그네틱 커플링 Outer Part 구조의 영구자석 누설에 따른 출력 저하 분석 211 윤명환*, 김지용, 이기덕, 유세현, 이정중
초S-3-6	10:50	Analysis of electromagnetic field characteristics considering thermal characteristics to establish an optimized design model for 15kW-class motors ... 212 Insoo Song*, Eunsil Han, Myeonggyun Choi, Yunyong Choi
초S-3-7	11:10	115kW급 HEV용 매입형 영구자석 동기기의 PWM 전류 고조파를 고려한 철손 및 AC동손 분석 213 김현수*, 박진철, 배예나, 유준열, 임명섭†
초S-3-8	11:30	1kW급 로봇용 SPMSM의 효율 개선을 위한 수식 기반 모터 설계 215 배예나*, 박진철, 김현수, 유준열, 임명섭†

5월 26일(목) 09:00~11:50

Symposium 4 ‘Magnetic Sensors and Micro-Devices’

루비

✿ 좌 장 : 윤석수(안동대) / 박덕근(㈜아이피트)

초S-4-1	09:00	높은 열 안정성과 자기장 감지 성능을 갖춘 평면 홀 자기저항센서의 발전과 핵심기술 219 임병화*, 전태형, 전창엽, 김미진, 김철기
초S-4-2	09:20	마이크로 직교플렉스게이트 센서의 개발 220 김경원*, 이형만, 홍성민, 이대성, 신광호, 임상호*
초S-4-3	09:40	면적형 홀센서 배열을 사용한 누설 자속 측정 221 박덕근*, 신정우, 이진이
초S-4-4	10:00	Application of Magnetoplethysmogram Sensor as the Measuring Device of Cuffless Blood Pressure and Peripheral Blood Flow Velocity 222 Sang-Suk Lee*, Jong-Gu Choi and Mahbub Hasan
초S-4-5	10:30	자기 통신을 위한 자기센서-기반 수신기의 설계 및 분석 224 김장열*, 이현준, 이재호, 오정훈, 조인귀

초S-4-6	10:50	자기센서 맞춤형 증폭 회로 설계 및 성능 분석 225 윤석수*, 김동영, 전태형
초S-4-7	11:10	Circuit design optimization for PHR sensor module targeting for highly integrated PCB analysis 226 Nam Young Lee*, Joong Hong Ji and Dae Sung Lee
초S-4-8	11:30	자기센서 성능 향상을 위한 전자회로 설계 227 손대락*

5월 26일(목) 09:00~12:10

Symposium 1 ‘Quantum Magnetism’

사파이어

✿ 좌 장 : 옥종목(부산대)

초S-1-5	09:00	Single crystal growth, magnetotransport, and temperature-dependent Raman scattering of Kagome metals 231 Kee Hoon Kim*
초S-1-6	09:30	Spin-Split Band Hybridization in Graphene Proximitized with α -RuCl ₃ Nanosheets 232 Youngwook Kim*
초S-1-7	10:00	A newcomer of one-dimensional $S = 1$ chain, NiTe ₂ O ₅ 233 Yoon Seok Oh*
초S-1-8	10:45	Towards Quantum Skyrmionics 234 Seungmo Yang, Taesung Joo, Jongwan Son, Kyoung Woong Moon, Sungkyun Park, Chanyong Hwang*
초S-1-9	11:15	Proving the origin of magnetically inhomogeneity of FeRh film using polarized neutron reflectometry 235 Sehwan Song, Jiwoong Kim, Chang-woo Cho, Jisung Lee, Dooyong Lee, Doukyun Kim, Hyegyung Kim, Haeyong Kang, Chul-Hong Park, Jun Kue Park, Jae Hyuck Jang, Noboru Miyata, Neeraj Kumar, Yeong-Ah Soh, Chanyoung Hwang, Brian J. Kirby, Sungkyun Park*
초S-1-10	11:45	Unusual spin pseudogap behavior in the spin web lattice Cu ₃ TeO ₆ probed by ¹²⁵ Te nuclear magnetic resonance 236 Seung-Ho Baek*, Kwang-Yong Choi and Bernd Büchner

5월 26일(목) 09:00~10:40

Session 1 구두발표 I ‘Spintronics I’

오팔 I

✿ 좌 장 : 박정민(KAIST)

O-1-1	09:00	Spin Hall Conductivities in W-Si Alloys 239 Quynh Anh T. Nguyen*, S. C. Hong and Sonny H. Rhim
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O-1-2	09:20	Effects of Interlayer on Magnetotransports In Graphene-based Spintronic Devices 240
		Nga T. Do*, Youngrok Jang, Sijin Park, Chanyong Hwang and Tae Hee Kim*
O-1-3	09:40	Sign-tunable anisotropic magnetoresistance and electrically detectable dual magnetic phases in a helical antiferromagnet 241
		Jong Hyuk Kim ^{*†} , Hyun Jun Shin [†] , Mi Kyung Kim [†] , Jae Min Hong, Ki Won Jeong, Jin Seok Kim, Kyungsun Moon, Nara Lee* and Young Jai Choi*
O-1-4	10:00	Spin Seebeck voltage in yttrium-iron-garnet embed Au-NPs structure 242
		Phuoc Cao Van, Jong-Ryul Jeong [†]
O-1-5	10:20	Comparison between Perpendicular and Longitudinal Exchange Bias Effects in (Mn, Co) ₃ Ga/Mn ₃ Ga Bilayers 243
		Hyeon-Su Kim*, Woosuk Yoo and Myung-Hwa Jung*

5월 26일(목) 10:40~12:00

Symposium 5 ‘뫼스바우어 자성’

오후 1

✿ 좌 장 : 윤성현(군산대)

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		Hyunkyung Choi* and Chul Sung Kim [†]
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		지윤성*, 우성현, 김성민, 정지수, 우승희, 강윤식, 이은직, 박구곤, 박석희, 임성대
초S-5-3	11:20	Iron-Based Catalysts for Production of Synthetic Waxes from Syngas: Selectivity Innovation by Mössbauer Spectroscopy 249
		Dong Hyun Chun*, Geun Bae Rhim, Min Hye Youn
초S-5-4	11:40	Development of potable Mössbauer Spectroscopy Instrumentation 250
		Jaegi Lee*, Gwang-Min Sun and Young Rang Uhm

5월 26일(목) 14:00~16:30

Symposium 6 ‘스핀트로닉스’

다이아몬드

✿ 좌 장 : 이경진(KAIST) / 박병국(KAIST)

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		Sang-Koog Kim [†] , Jaehak Yang*, Hyeon-Kyu Park, Gyuyoung Park, Claas Abert and Dieter Suess
초S-6-2	14:20	Disparate field-response of magnetic submoment in ferrimagnetic TbCo 254
		Ji-Ho Park, Won Tae Kim, Woonjae Won, Jun-Ho Kang, Soogil Lee, Byong-Guk Park, Byoung S. Ham, Fabian Rotermund and Kab-Jin Kim*

초S-6-3	14:40	Magnetic tunnel junctions with two-dimensional van der Waals magnets: Bias controlled and spin-transfer-torque induced spin-valve operations 255 Suyong Jung*, Keun-Hong Min, Dun Hyun Lee, Sang-Jun Choi, Jonghwa Eom and Jun Sung Kim
초S-6-4	15:00	Two-fluid magnon transport : experimental evidences 256 Kyongmo An*, Changsoo Kim, Chanyong Hwang
초S-6-5	15:30	Chiral induced spin selectivity in halide perovskites enables spin light-emitting diodes 257 Young-Hoon Kim*
초S-6-6	15:50	Damping-Induced Superluminal-like Motion of Antiferromagnetic Magnons at nm Scale 258 Kyunsup Lee*, Dong-Kyu Lee, Dongsheng Yang, Rahul Mishra, Dong-Jun Kim, Sheng Liu, Qihua Xiong, Se Kwon Kim, Kyung-Jin Lee and Hyunsoo Yang
초S-6-7	16:10	Introduction of Magnetic Tunnel Junction Materials (Sputtering Target) 260 Young Jin Park*

5월 26일(목) 16:40~18:00

Session 2 구두발표 II 'Spintronics II' / 'Magnetization Dynamics'

다이아몬드

✿ 좌 장 : 최경민(성균관대)

O-2-1	16:40	Optical methodologies for detections of spin, magnon, and orbital 263 Young-Gwan Choi* and Gyung-Min Choi†
O-2-2	17:00	Controlling Chaos in Skyrmion Dynamics 264 Gyuyoung Park* and Sang-Koog Kim
O-2-3	17:20	Tunable magnetic transition temperature and enhanced magnetoresistance of FeRh thin film by Co doping 265 Sang-Il Seo*, Mintae Park and Myung-Hwa Jung
O-2-4	17:40	Spin-orbit torque of W-V alloy based magnetic heterostructures 266 Jeong Kyu Lee*, Gyu Won Kim, Taehyun Kim, Min Hyeok Lee, In Ho Cha, Jiung Cho, Young Keun Kim

5월 26일(목) 14:00~18:00

Symposium 3 'Permanent Magnetics' & 'Electro-Magnetic Energy Conversion' 공동세션

에메랄드

✿ 좌 장 : 이정구(KIMS) / 유상임(서울대) / 이정중(한국전자기술연구원)

초S-3-9	14:00	Current Status and Research & Development Trend of magnetic materials used for Home appliance Motors 269 Song E Park*
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초S-3-10	14:20	Development of high-performance and cost-effective Nd-saving Nd-Fe-B hot-deformed magnets 270 Tae-Hoon Kim*, Ga-Yeoung Kim, Hee-Ryoung Cha, Jung-Goo Lee [†]	270
초S-3-11	14:40	Phase Transformation and Deformation Behavior of Fe-rich Permanent Magnetic Materials 272 Jihoon Park*, Jung Tae Lim, Hui-Dong Qian, Chul-Jin Choi [†]	272
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초S-3-13	15:30	Ce-based RE-Fe Permanent Magnet Designing; First principles calculation approach 274 Ji Hoon Shim*	274
초S-3-14	15:50	Enhanced magnetic anisotropy in Fe _{16-x} Al _x N ₂ alloy 275 Jinho Byun and Jaekwang Lee*	275
초S-3-15	16:20	해석적 방법을 이용한 마그네틱 기어의 자속밀도 및 토크 해석 276 이훈기*, 최장영 [†]	276
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초S-3-18	17:20	상미분방정식을 이용한 고전압 충전 커패시터와 공심요크를 이용한 고자속밀도 발생과정에 관한 연구 280 이성구*, 이규원, 배재남	280

5월 26일(목) 14:00~17:50

Symposium 7 'Soft Magnetics'

루비

✿ 좌 장 : 임혜인(숙명여대) / 정재원(KIMS)

초S-7-1	14:00	Modulation of electromagnetic wave absorbing properties in hexaferrites composites 283 Su-Mi Lee, Young-Min Kang*	283
초S-7-2	14:20	New route to manufacture microwave absorbing materials with high magnetic permeability 284 Young-Tae Kwon*, Mi Se Chang, Jae Won Jeong, Min-Sun Jang, Byeongjin Park and Sang-Sun Yang	284
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초S-7-4	15:00	딥러닝을 이용한 Fe-based Metallic Glass 소재의 자기특성 예측 286 남충희*
초S-7-5	15:20	Magnetic properties of Fe-rich amorphous powders produced by high speed water screen atomization process (HWSP) for power inductor 287 Tae Kyung Lee*, Young Woo Kim, Dae Yong Jeong
초S-7-6	15:50	전력변환부품용 페라이트 코어 개발동향 288 황득규*, 이희혁, 이기양
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초S-7-9	16:50	Fe ₄₈ Co ₄₈ V ₂ 합금의 열처리 조건변화에 따른 자기적 특성 291 Eonbyeong Park*, Yongchan Kim
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초S-7-11	17:30	Introduction of trends in motors with soft magnetic materials 293 Won-Ho Kim*

5월 26일(목) 14:30~17:15

Symposium 1 ‘Quantum Magnetism’

사파이어

❁ 좌 장 : 이성빈(KAIST)

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초S-1-12	15:00	Interaction of spin superfluid and magnonic topological phases 298 Seunghun Lee, Gyungchoon Go and Se Kwon Kim*
초S-1-13	15:45	Orbital physics and engineering in LaMnO ₃ films 300 Chan-Ho Yang*
초S-1-14	16:15	토크 마그네토미터를 이용한 반강자성 산화물 연구 301 옥종목*
초S-1-15	16:45	Quasi-two-dimensional square lattice S = 2 antiferromagnet Ba ₂ FeSi ₂ O ₇ : Magnetic properties and quantum transition 302 Jae-Hoon Park*

5월 26일(목) 14:00~16:10

Symposium 8 ‘Low Dimensional Magnetism’

오팔 I

✿ 좌 장 : 유정우(UNIST)

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5월 26일(목) 16:20~17:40

Session 3 구두발표 III ‘Low Dimensional Magnetism’ / ‘Magnetic Sensors and Micro-Devices’

오팔 I

✿ 좌 장 : 유정우(UNIST)

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5월 27일(금) 09:00~11:30

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✿ 좌 장 : 김갑진(KAIST)

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- 초O-4-5 10:30 Investigation of Magnetic Frustration Effects in Quasicrystal Approximants .. 326
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Sang-Wook Cheong, Jae Hoon Kim^{*}, Bohm-Jung Yang^{*}, Kyoo Kim^{*}, Jun Sung Kim^{*}
- 초O-4-7 11:10 Unconventional Interlayer Exchange Coupling via Chiral Phonons in
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Young-Min Kim, Valeria Lauter, Takeshi Egami, Jung Hoon Han, Woo Seok Choi

5월 26일(금) 11:40~12:20

Session 5 구두발표 IV 'Soft Magnetics'

다이아몬드

✿ 좌 장 : 장민선(KIMS)

- O-5-1 16:20 산화물-레진 2층 절연막 순철 SMC 코어 333
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- O-5-2 16:40 Characteristics of crystalline and amorphous soft magnetic cores from
Fe-based soft magnetic powders 334
Minwoo Lee, Dohun Kwon, Youngsin Choi, Dae Won Jung, Hwijun Kim^{*}

5월 27일(금) 09:00~12:10

Symposium 9 'Magnetics in Medical Science'

에메랄드

✿ 좌 장 : 안우상(울산대) / 한만석(강원대)

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5월 27일(금) 09:00~10:50

Symposium 10 'Bio-Convergence Magnetics'

루비

✿ 좌 장 : 유천열(DGIST)

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초S-10-2	09:20	Magnetic-based Pressure Sensor and Its Applications for Bio-medical Instruments	350
		Sungwon Lee*	
초S-10-3	09:40	자성기반 펜슬형 맥박패턴 측정 시스템	351
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		Chun-Yeol You*	

5월 27일(금) 09:00~12:15

Symposium 1 'Quantum Magnetism'

사파이어

✿ 좌 장 : 손창희(UNIST)

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5월 27일(금) 09:00~10:50

Symposium 11 ‘자기이론분과 심포지움’

오팔 I

✿ 좌 장 : 임성현(울산대)

- 초S-11-1 09:00 Anomalous Hall signatures of nonsymmorphic nodal lines in the doped chromium chalcospinel CuCr_2Se_4 365
Subhasis Samanta, Gang Chen and Heung-Sik Kim
- 초S-11-2 09:25 Anti-Hund's Singlet State in an Insulating layered Nickelate 366
Kwan-Woo Lee*
- 초S-11-3 10:00 Competing magnetisms in Sr_2RuO_4 367
Bongjae Kim
- 초S-11-4 10:25 Dynamical mean-field theory study of a ferromagnetic CrI_3 monolayer 368
Chang-Jong Kang*, Jeongwoo Kim

5월 26일(금) 11:00~12:00

Session 6 구두발표 V ‘Theory and Computational Magnetism’

사파이어

✿ 좌 장 : 임성현(울산대)

- O-6-1 11:00 Electric field induced giant anomalous Nernst effect and switching in 2D $\text{MoTe}_2/\text{VSe}_2$ heterostructure 371
Brahim Marfoua and Jisang Hong*
- O-6-2 11:20 Topological singularities and avoided crossings in compensated ferrimagnet Mn_3Al 372
Minkyu Park* and S. H. Rhim
- O-6-3 11:40 Magnetic interaction in Sr_2RuO_4 and superconducting gap symmetry 373
Jae-Ho Han*, Bongjae Kim



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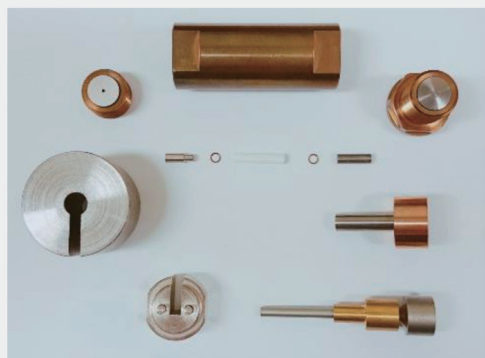
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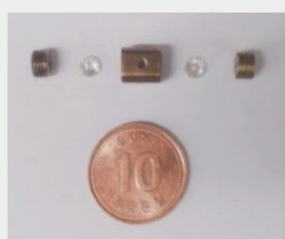
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