2020

1

2

3

4

LAN

Mao Junjie

* * *
* Singh Avinash*
Gangopadhyay Anjasha*
*

Kim Sangwook

Munisai Nuermaimaiti

Shiv Kumar
Mohamed Ibrahim

2022	4	30	Mao Junjie
2022	6	30	Munisai Nuermaimaiti
2022	12	9	Shiv Kumar
2023	3	31	

2022				
	1.2			E208
	3.4			E210
	5.6 7.8			E208
	9.10			
	1.2			
	3.4			
	5.6			
	7.8			
	9.10			
	1.2			
	3.4			
	5.6			
	7.8			
	9.10			
	1.2			
	3.4	X		
	5.6	A	7	
	7.8	X		
		B	7	
	9.10			
	1.2			
	3.4			C224
	5.6			
	7.8			
	9.10			
	A D - - A		C	

2022

2

28 30 (26 4)
12 11 (8 3)

- 80
- 36
- 16

- 31
- 29
- 8

- 2
- 14

2022 22

1 g − 2

2

3 Magainin2

4

5 EXAFS RMC Fe-Ni

6 X $AlFeO_3$

7 h-BN/Ni(111)

8 X $Ba(Ti_{1-x}Snx)O_3$

Sn

9

2022 6

[1] Wumiti Mansuer 2022 9 2
Development of Laser-ARPES System for the Study of the Electronic Structure of Unconventional Superconductors
ARPES

[2] 2022 9 2
Chiral Symmetry Breaking in Four-fermion Interaction Model with Thermal and Finite-size Effects
4

[3] HOU XUEYAO 2022 9 20
First Principal Calculation and Angle-resolved Photoemission Spectroscopy Study of Ultrathin Cr_2O_3 and $CrTe_2$ Films
Cr_2O_3 $CrTe_2$

[4] Amit Kumar 2022 9 20 92
Angle-resolved Photoemission Spectroscopy Study of Many-body Effects on 3D Topological Insulator Bi_2Te_3
3 Bi_2Te_3

ħ % .

2022 21 2 1 11
11

2013

2017

HiSOR SPring-8

	Hiroshima		1	2	
	Japanese Experience of Social Development-Economy,Infrastructure,and peace		1		
	Japanese Experience of Human Development-Culture,Education,and Health				
	SDGs	A			
	SDGs	B			
	SDGs				

	Introductory course to advanced physics A B	1 1 1 1 2	2 2 2 4			
	X A B A B C D	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2 1 2 1 2 1 2 1 1		2 2 2 2 2 2 2 2 2 2 1 1 2 2 2 2 1 1 1 1 1 2 2 2		

30

30

1 2

1

1

2 3

1

2

3 25

18 10 8

A B C D

2

1 1 2 2 1 2 1 2 1 2

		SDGs	1 2 3		1		
		SDGs	1 2 3		1		
			1 2 3		1		
			1 2 3		2		
			1 2 3		2		
			1 2 3		1		
			1 2 3		1		
			1 2 3		1		
			1 2 3		1		
			1 2 3		1		
			1 2 3		2		
			1 2 3		2		
			1 2 3		1		
			1 2 3		2		
		Technology Strategy and R D Management	1 2 3		1		
			1 2 3		1		
			1 2 3		1		
			1 2 3		1		
			1 2 3		2		
			1 3	12		12	

16

16

1 2

1

1

2 2

1

1

3 12

1 3 1 3 1 2 3

5

1 1 1

1 1 1

1 1

JSAT 1 1

1 1 1

1 P G 1

1 1

4

1

Core-U：Core Research for Energetic Universe

4　… 18

Kim Sangwook　International Association of Advanced Materials Award

HOU XUEYAO

The 14th Japan-China Symposium on Ferroelectric Materials and Their Application (JCFMA-14) Best Poster Presentation Award
15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15) Poster Award

2022

4　… 3

4　… 90

-
-
-
-
-

QCD

(QGP)

QCD (QCD) 2000

Relativistic Heavy Ion Collider (RHIC) QGP QGP

QGP QGP QGP

2

QCD

1)

QGP

QGP

2

2)

Cu+Au

[28]

3)

SMASH

ii

1)

QCD

QCD 1+1 GN

1+1 GN

QCD GN

II

2022 4

2 3 4

4

[7,8]

فج % 4

[3

8

[8,9,10], [8],

[11,15,16] N

2

4

4

IV

,)

2

2 3 2

2 1

3

3

3 3×3 2

2 3

2 ([20])

ii — (,

—

(VLQ) 6

( )

“ ”

([22])

—

V

2 10 SU(5)

SU(5) 24 $SU(2)_L$ 3 CDF

W [23]

A4 3

A4 3 CP

2

[22]

[1] Kouki Nakamura, Takahiro Miyoshi, Chiho Nonaka, Hiroyuki R. Takahashi, “Charge-dependent anisotropic flow in high-energy heavy-ion collisions from a relativistic resistive magneto-hydrodynamic expansion”, Phys.Rev.C 107 (2023) 3, 034912.

[2] Kouki Nakamura, Takahiro Miyoshi, Chiho Nonaka, Hiroyuki R. Takahashi, “Relativistic resistive magneto-hydrodynamics code for high-energy heavy-ion collisions”, Eur.Phys.J.C 83 (2023) 3, 229.

[3] Kouki Nakamura, Takahiro Miyoshi, Chiho Nonaka, Hiroyuki R. Takahashi, “Directed flow in relativistic resistive magneto-hydrodynamic expansion for symmetric and asymmetric collision systems”, Phys.Rev.C 107 (2023) 1, 014901.

[4] Hirotsugu Fujii, Kazunori Itakura, Katsunori Miyachi, Chiho Nonaka, “Photon production in high-energy heavy-ion collisions: Thermal photons and radiative recombination”, Acta Phys.Polon.Supp. 16 (2023) 1, 130.

[5] Hirotsugu Fujii, Kazunori Itakura, Katsunori Miyachi, Chiho Nonaka, “Radiative hadronization: Photon emission at hadronization from quark-gluon plasma”, Phys.Rev.C 106 (2022) 3, 034906.

[6] Y. Kitadono, Tomohiro Inagaki, “Elliptically oscillating solutions in Abelian–Higgs model and electromagnetic property”, Int. J. Mod. Phys. A37 (2022) 13, 2250084.

[7] T. Inagaki, M. Taniguchi, “Cartan F(R) gravity and equivalent scalar–tensor theory”, Symmetry 14 (2022) 9, 1830.

[8] Pietro Butti, Margarita Garcia Perez, Antonio Gonzalez-Arroyo, Ken-Ichi Ishikawa, Masanori Okawa, “Scale setting for large-N SUSY Yang-Mills on the lattice”, J. High Energ. Phys. 2022, 74 (2022), DOI: https://doi.org/10.1007/JHEP07(2022)074

[9] P. Butti, M. Garcia Perez, A. Gonzalez-Arroyo, K. I. Ishikawa, M. Okawa, “Scale setting for N=1

SUSY Yang-Mills at large-N through volume-reduced twisted matrix model", PoS(LATTICE2021)474, DOI: https://doi.org/10.22323/1.396.0474

[10] Pietro Butti, Margarita García Pérez, Antonio González-Arroyo, Ken-Ichi Ishikawa, Masanori Okawa, "Large N simulation of the twisted reduced matrix model with an adjoint Majorana fermion," PoS(LATTICE2021)334, DOI: https://doi.org/10.22323/1.396.0334

[11] Antonio González-Arroyo, Ken-Ichi Ishikawa, Yingbo Ji, Masanori Okawa, "Perturbative study of large N principal chiral model with twisted reduction", Int.J.Mod.Phys.A 37 (2022) 36, 2250210, DOI: https://doi.org/10.1142/S0217751X22502104

[12] Ken-Ichi Ishikawa, Issaku Kanamori, Hideo Matsufuru, Ikuo Miyoshi, Yuta Mukai, Yoshifumi Nakamura, Keigo Nitadori, Miwako Tsuji, "102 PFLOPS Lattice QCD quark solver on Fugaku", Computer Physics Communications, 2022, 108510, DOI: https://doi.org/10.1016/j.cpc.2022.108510

[13] Ken-ichi Ishikawa, Naruhito Ishizuka, Yoshinobu Kuramashi, Yusuke Namekawa, Yusuke Taniguchi, Naoya Ukita, Takeshi Yamazaki, Tomoteru Yoshié for PACS Collaboration, "Kℓ3 form factors at the physical point: Toward the continuum limit", Phys.Rev.D 106 (2022) 9, 094501, DOI: https://doi.org/10.1103/PhysRevD.106.094501

[14] Ryutaro Tsuji, Natsuki Tsukamoto, Yasumichi Aoki, Ken-Ichi Ishikawa, Yoshinobu Kuramashi, Shoichi Sasaki, Eigo Shintani, Takeshi Yamazaki, "Nucleon isovector couplings in Nf = 2 + 1 lattice QCD at the physical point", Phys.Rev.D 106 (2022) 9, 094505, DOI: https://doi.org/10.1103/PhysRevD.106.094505

[15] Takeshi Yamazaki, Ken-ichi Ishikawa, Naruhito Ishizuka, Yoshinobu Kuramashi, Yoshifumi Nakamura, Yusuke Namekawa, Yusuke Taniguchi, Naoya Ukita, Tomoteru Yoshié for PACS Collaboration, "Calculation of kaon semileptonic form factor with the PACS10 configuration", PoS(LATTICE2021)563, DOI: https://doi.org/10.22323/1.396.0563

[16] Ken-Ichi Ishikawa, Issaku Kanamori, Hideo Matsufuru, "Multigrid Solver on Fugaku", PoS(LATTICE2021)278, DOI: https://doi.org/10.22323/1.396.0278

[17] ○ Masato Miyazaki, Ken-Ichi Ishikawa, Ken'ichiro Nakashima, Hiroshi Shimizu, Taiki Takahashi and Nobuyuki Takahashi, "Application of the symbolic regression program AI-Feynman to psychology", Front. Artif. Intell. 6:1039438, DOI: 10.3389/frai.2023.1039438

[18] Takuya Morozumi, Apriadi Salim Adam, Yuta Kawamura, Albertus Hariwangsa Panuluh, Yusuke Shimizu, Kei Yamamoto, "Effective theory for universal seesaw model and FCNC" J.Phys.Conf. Ser.2446(2023) 1,012046, p1-p4.

[19] Albertus Hariwangsa Panuluh and Takuya Morozumi, "Study of weak-basis invariants in the universal seesaw model using Hilbert Series", J.Phys.Conf. Ser.2446(2023) 1,012049. p1-p4

[20] Nicholas J. Benoit, Takuya Morozumi, Yusuke Shimizu, Kenta Takagi, Akihiro Yuu, "Renormalization group effects for a rank degenerate Yukawa matrix and the fate of massless neutrino", PTEP 2022 (2022)113B02, p1-p18.

[21] Nicholas J. Benoit, Yuta Kawamura, Takuya Morozumi, "Time evolution of the lepton numbers of Majorana neutrinos in the Schrodinger picture versus Heisenberg picture", Pos Corfu2021(2022)063, p1-p10.

[22] Yukimura Izawa, Yusuke Shimizu, Hironori Takei, "Non-SUSY lepton flavor model with the three Higgs doublet model", Progress of Theoretical and Experimental Physics, Volume 2023, Issue 6, June 2023, 063B04.

[23] Yusuke Shimizu, Shounosuke Takeshita, “W Boson Mass and Grand Unification via the Type-II Seesa-like Mechanism”, Nucl.Phys.B 994(2023)116290.

[24] A. Sakai, K. Murase, H. Fujii, T. Hirano, “Space-time Evolution of Critical Fluctuations in an Expanding System”, DOI: 10.5506/APhysPolBSupp.16.1-A155 Acta Phys. Pol. B Proc. Suppl. 16, 1-A155 (2023)

[1] Chiho Nonaka, “Relativistic Hydrodyncmi Model in High-Energy Heavy-Ion Collisions”, 2023 3rd IITB-Hiroshima workshop in HEP, 2023.2.20-22, , [2023 2 22]

[1] Chiho Nonaka, Kazunori Itakura, Hirotsugu Fujii, Katuya Miyachi, “Photon Production in High-Energy Heavy-Ion Collisions: Thermal Photons and Radiative Recombination”, Quark Matter 2022, 2022.4.4-10, Krakow, Poland, [2022 4 7]

[2] Chiho Nonaka, “Chirality and Knot in Relativistic Hydrodynamics”, SKCM2 Kickoff Symposium 2023, 2023.3.20-22, , , [2023 3 20]

[3] Chiho Nonaka, Kouki Nakamura, Takahiro Miyoshi, Hiroyuki Takahashi, “Charge-dependent anisotropic flow in high-energy heavy-ion collisions from relativistic resistive magneto-hydrodynamic expansion”, , 2023.3.22-25, , [2023 3 25]

[4] A. Hikita, T. Inagaki, M. S. Maekawa, S. Tajima, Y. Miyazaki and E. Nagasawa, “A Social Media Simulator for Media Literacy Education in Japanese schools and universities”, IFIP WCCE 2022: World Conference on Computers in Education, Hiroshima, Japan, [2022 8 24]

[5] T. Inagaki, N. Takahashi and M. Nakanishi, “Curriculum Standard of Informatics in General Education at Universities in Japan”, IFIP WCCE 2022: World Conference on Computers in Education, Hiroshima, Japan, [2022 8 23]

[6] N. Chubachi, T. Inagaki and K. Kawamura, “Implementation and Evaluation of University Information Placement Test in Japan”, IFIP WCCE 2022: World Conference on Computers in Education, Hiroshima, Japan, [2022 8 22]

[7] Y. Murakami, Y. Sho and T. Inagaki, “Improving Motivation in Undergraduate Data Science. Education by Using Dilemma Problems”, IFIP WCCE 2022: World Conference on Computers in Education, Hiroshima, Japan, [2022 8 22]

[8] Antonio Gonzalez-Arroyo, Margarita García Pérez, Pietro Butti, Ken-Ichi Ishikawa, Masanori Okawa, “Adjoint fermions at large-Nc on the lattice”, the 39th international conference on lattice field theory. Lattice 2022, Hoersaalentrum Pooplsdorf, [2022 8 10]

[9] Takeshi Yamazaki, Ken-Ichi Ishikawa, Naruhito Ishizuka, Yoshinobu Kuramashi, Yusuke Namekawa, Yusuke Taniguchi, Naoya Ukita, Tomoteru Yoshie, “Momentum transfer dependence of kaon semileptonic form factor on (10 fm)^4 at the physical point”, the 39th international conference on lattice field theory. Lattice 2022, Hoersaalentrum Pooplsdorf, [2022 8 10]

[10] Ryutaro Tsuji, Ken-Ichi Ishikawa, Eigo Shintani, Yasumichi Aoki, Yoshinobu Kuramashi, Shoichi Sasaki, Takeshi Yamazaki, “Towards the continuum limit of nucleon form factors at the physical

[2023 3 22]

[26] Yusuke Shimizu, Shonosuke Takeshita, “Experimental testability of GUT model including the mirror particles”, KEK Theory Meeting on Particle Physics Phenomenology (KEK-PH) and International Joint Workshop on the Standard Model and beyond, 2022.11.29- 12.1, [2022 12 1]

[27] Yusuke Shimizu, Shonosuke Takeshita, “The W boson mass anomaly in the extention of the minimal SU(5) GUT model”, 3rd Hiroshima-IITB workshop in HEP, 2023.2.20- 22, [2023 2 21]

[28] _____, , “Cartan F(R) gravity and Inflation”, JGRG31, 2022.10.24-28, [2022 10 24 -25]

[29] , _____, “Comprehensive Analysis of Equivalence Classes in 5D SU(N) gauge theory with S1/Z2 compact space”, 3rd IITB-Hiroshima workshop in HEP, 2023.2.20- 22, [2023 2 20]

[1] Keita Horie and Chiho Nonaka, “Inhomogeneous phases in 1+1 dimensional chiral Gross-Neveu model on the lattice”, , 2022.9.20-22, , [2022 9 22]

[2] Chiho Nonaka, Kazunori Itakura, Hirotsugu Fujii, Katuya Miyachi, “Photon Production in High-Energy Heavy-Ion Collisions: Thermal Photons and Radiative Recombination”, Setouchi Summer Institute 2022, 2022.9.26-28, , [2022 9 28]

[3] Chiho Nonaka, Kouki Nakamura, Takahiro Miyoshi, Hiroyuki Takahashi, “Charge-dependent anisotropic flow in high-energy heavy-ion collisions from relativistic resistive magneto-hydrodynamic expansion”, , 2023.3.22-25, , [2023 3 25]

[4] , _____, F(R) , 2023 , , [2023 3 24]

[5] , , _____, Cartan , 2023 , , [2023 3 23]

[6] , _____, S^1/Z_2 5 SU(N) , 2023 , , [2023 3 23]

[7]

, 2023 , 2023.3.22-25, , [2023 3 24]
[12] , _____, , Antonio Gonzalez-Arroyo, , 2023 , 2023.3.22-25, , [2023 3 24]
[13] , _____, Cayley GWW , 2023 , 2023.3.22-25, , [2023 3 24]
[14] , , _____, , , , , QCD , 2023 , 2023.3.22-25, , [2023 3 24]
[15] _____, Pietro Butti, Margarita Garcia Perez, Antonio Gonzalez-Arroyo, , Scale setting for large-N SUSY Yang-Mills on the lattice , , 2022.12.12-13, , [2022 12 12]
[16] _____, Pietro Butti, Margarita Garcia Perez, Antonio Gonzalez-Arroyo, , Scale setting for large-N SUSY Yang-Mills on the lattice , SSI2022, , 2022. 9.26-28, , [2022 9 26]
[17] , _____, , , , , , , for PACS Collaboration, QCD K , 2022 , 2022.9.6-8, , [2022 9 6]
[18] , , _____, , , , , QCD , 2022 , 2022.9.6-8, , [2022 9 6]
[19] , _____, , Antonio Gonzalez-Arroyo, N , 2022 , 2022.9.6-8, , [2022 9 8]
[20] _____, Antonio Gonzalez-Arroyo, , , Gross-Witten-Wadia , 2022 , 2022.9.6-8, , [2022 9 8]
[21] _____, , , , _____, , “ 1 ”, 2022 , , 2022.9.6-8, [2022 9 6]
[22] _____, Nicholas J Benoit, _____, , “ ”, 2023 , 2023.3.22-25, , [2023 3 25]
[23] Takuya Morozumi, “Flavor structure of the Universal seesaw model”, — 2022, E102, 2022.9.26-28, , [2022 9 28]
[24] , _____, , 2023 , 2023.3.22-25, [2023 3 25]
[25] _____, , , 2023 , 2023.3.22-25, [2023 3 23]
[26] , , , _____, _____, , ,

, 2022 , 2022.9.6-8, , [2022 9 6]
[27] , , _____, , _____, _____, , 2023 , 2023.3.22-25, , [2023 3 25]
[28] , , _____, , , 2023 , 2023.3.22-25, , [2023 3 25]
[29] , 1 , 2022, , 2022.9.26-28, [2022 9 28]
[30] Cendikia Abdi, “Chemical equilibration and thermalization of quark-gluon plasma”, Netsuba 2022, 2022.9.20-22, [2022 9 20]
[31] Cendikia Abdi, “Transport model approach to quark-gluon plasma equilibration”, JPS Spring conference 2023, 2023.3.22-25, [2023 3 25]
[32] Albertus Hariwangsa Panuluh and Takuya Morozumi, “Study of hilbert series in the Universal. Seesaw Model”, JPS 2022 Autumn Meeting, 2022.9.6-8, [2022 9 6]
[33] N. J. BENOIT, “Evolution of lepton number for neutrinos with wave packet-like effects”, Progress in Particle Physics 2022 (YITP-W-22-11), 2022.8.29-9.2, [2022 8 29]
[34] N. J. BENOIT, “Effects of renormalization group kernels on the lightest neutrino mass in the Type-I Seesaw Model”, 2022 , 2022.9.6-9, [2022 6]
[35] , , 2022, 2022.8.6-9, [2022 8 9]
[36] , _____, , 3HDM , 2022 , 2022.9.6-8, [2022 9 7]
[37] , _____, , “Lepton flavor structure based on 3HDM”, Summer Institute 2022, 2022.9.18-22, [2022 9 19]
[38] , _____, , 4 3HDM , 4 , 2022.9.26-28, [2022 9 28]
[39] , _____, , 3HDM CP , Flavor. Physics workshop 2022, 2022.11.7-10, [2022 11 9]
[40] , _____, , 3HDM , 35 , 2022.12.21-23, [2022 12 22]
[41] , _____, , 2023 , 2023.3.22-25, [2023 3 25]
[42] , , _____, CP , , 2022.9.6-8, [2022 9 7]
[43] , _____, Cayley , , 2022.9.26-28, [2022 9 28]
[44] , _____, Cayley GWW , , 2023.3.22-25, [2023 3 24]
[45] , , 2022 68

, 2022.8.6-9, [2022 8 7]
[46] _____, , , 4
SSI2022, 2022.9.26-28, [2022 9 28]
[47] _____, , , Flavor
Physics workshop 2022 (FPWS2022), 2022.11.7-10, [2022 11 9]
[48] _____, , ,
2023 , 2023.3.22-25, [2023 3 23]
[49] , _____, , ,
2022 68 , 2022.8.6-9, [2022 8 9]
[50] , , 2022 15
, 2022.9.26-28, [2022 9 26]
[51] ,_____, , ,
2023 , 2023.3.22-25, [2023 3 23]
[52] _____, , Cartan F(R) ,
2022 , 2022.9.6-8, [2022 9 8]
[53] _____, , Cartan ( ) ,
2022, 2022.9.26-28, [2022 9 28]
[54] _____, , F(R) , 2023 ,
2023.3.22-25, [2023 3 24]
[55] , _____, ,
2022, 2022.8.6-9, [2022 8 7]
[56] , _____,
, 2022, 2022.9.26-28, [2022 9 28]
[57] , _____, S1/Z2 SU(N)
, 2022, 2023.3.16-18, [2023 3 16]
[58] , _____, S1/Z2 5 SU(N)
, 2023 , 2023.3.22-25, [2023 3 23]

- 6
- 7
- 0

- 18
- 14
- 2

2020 10 1 Ji Yingbo

2021 10 2 Abdi Cendikia
Albertus Hariwangsa Panuluh

○ SSH

○

[1] _____ 39 Heavy Ion Cafe & 35 Heavy Ion Pub , 2022 4 30
13:00-17:30

[2] _____ 36 Heavy Ion Pub , 2022 8 3 14:00-18:00,

[3] _____ 37 Heavy Ion Pub , 2022 12 16 15:00-18:00,

[4] _____ (HPC-Phys)
15 , 2022 7 1 ( ) 15:00-17:20,
16 , 2022 9 16 ( ) 15:00-17:30,
17 , 2022 12 14 ( ) 9:30-15:00, ( ),
18 , 2023 2 8 ( ) 9:30-15:00, ( ),

[5] _____ CORE-U
77 CORE-U
2022 12 28 ( ) 12:50-14:20

○

[1] _____
Phenomenological analysis on high-energy heavy-ion collisions: Duke University
Steffen A. Bass

[2] _____
Construction of parton cascade model Base on SMASH: Frankfurt Univeristy
Hannah Elfner

[3] _____
Theory of Modified Gravity: ICREA, Barcelona
Sergei D. Odintsov

[4] _____
Twisted Reduced Marix model: Universidad Autónoma de Madrid
Antonio Gonzalez-Arroyo

[5] _____
(1)Time Variation of Particle Number: Tomsk State Pedagogical University (Russia)
Takata Hiroyuki
(2) Time Variation of Lepton Number: BRIN (,)
Apriadi Salim Adam

[6] _____

The 3rd IIT Bombay-Hiroshima workshop in HEP, 2023.2.20-22, Hibrid, E102, Fac.of Sci., Hiroshima University.

○

[1] _____

[2] _____

[3] _____

[4] _____

[5] _____

[6] _____ QCD Matter Open Forum (QCDMOF)

[7] _____ 5 A HPCI

[8] _____

[9] _____ 19 Jr. 2023 1

[10] _____ 19 Jr. 2023

[11] _____

[12] _____

[13] _____

[14] _____

[15] _____

[16] _____

[17] _____ HPCI

○

[1] _____ (A),
QCD QCD 2020 2024 , , 2022
4,000

[2] _____ (A),
2020 2024 , , 2022 800

[3] _____ (C),
2020 2022 , , 2022 100

[4] _____ 4
4 , , 4
1,089

[5] _____ (C), N ,
2021 2024 , , 2022 100

○

[1] > Ŏ “Best poster Award”, Quark Matter 2022, Krakow, Poland, April 2022
A. Sakai, K. Murase, H. Fujii, T. Hirano, “Space-time Evolution of Critical Fluctuations in an Expanding System”

[2] _____ & Æ ____, ___ % ____, _____ k ____..____, , Æ % Vol.67 ŧ б7 / ή
No.2 k(date of presentation) 2023 3

% ŧ k
2022 % k ŧ
½ Ŏ
ū] ↑ Æ
%
ū] Æ /
3

X (JDEI( ))

1

2

20201124A

2 GHz

[10] I. Chiu et al. (N. Okabe is the 17th of 22 others), “The eROSITA Final Equatorial-Depth Survey (eFEDS). X-ray observable-to-mass-and-redshift relations of galaxy clusters and groups with weak-lensing mass calibration from the Hyper Suprime-Cam Subaru Strategic Program survey”, A&A, 661, A11 (2022)

[11] M. Ramos-Ceja et al. (N. Okabe is the 6th of 26 others), “The eROSITA Final Equatorial-Depth Survey (eFEDS). A complete census of X-ray properties of Subaru Hyper Suprime-Cam weak lensing shear-selected clusters in the eFEDS footprint”, A&A, 661, A14(2022)

[12] Y. Hsu et al. (N. Okabe is the 14th of 19 others), “SDSS-IV MaNGA: Cannibalism Caught in the Act-On the Frequency of Occurrence of Multiple Cores in Brightest Cluster Galaxies”, ApJ, 933, 61 (2022)

[13] M. Buzzo et al. (N. Okabe is the 11th of 11 others), “The stellar populations of quiescent ultra-diffuse galaxies from optical to mid-infrared spectral energy distribution fitting” MNRAS, 517, 2231-2250 (2022)

[14] N. Ota et al. (N. Okabe is the 6th of 20 others), “The eROSITA Final Equatorial-Depth Survey (eFEDS). X-ray properties of Subaru's optically selected clusters”, A&A, 669, A110 (2023)

[15] R. Shimakawa, N. Okabe, M. Shirasaki, M. Tanaka, “King Ghidorah Supercluster: Mapping the light

, , 100

[3] _____, , RCNP
, , 2022.8.3-5, 180

[4] _____, , 2023 , ,
2023.3.22-25, 100

[1] _____, , 2022
2022.9.6-8,

[2] _____, ,
2021 2022.9.13-15,

[3] _____, ,
2023 2023.3.13-16,

[4] _____, Deforming neutron-star crust in a long timescale toward failure , RCNP
2022.8.3-5,

[5] _____, , Hirosaki Cosmophysics Seminar 2022.11.17,

[6] _____, , 2023 2023.3.1-3,

[7]

○

[1] _____ Prog. Theo. Exp. Phys.

[2] N. Okabe HSC collaboration, cluster working group chair

[3] N. Okabe HSC-XXL collaboration, negotiator

[4] N. Okabe HSC-eROSITA collaboration, cluster working group coordinator

○

[1] _____ Recent progress on physics of pulsar magnetospheres , , 2022.6.15,

○

[1] _____, _____, 2022 , 2022.11.8-10, 140

,

[2] _____, _____ -- -- , 2023.3.20, 40 ,

○

[1] _____ , (C) 2019-2022 , , 3,200

[2] _____ , (C) 2020-2022 , , 2022 800

[3] , ( )

CERN LHC
ALICE
ALICE
MFT CERN
2022 LHC 3 2
ALICE Nature 1 Nature Phyiscs 1
26 ALICE BNL RHIC
PHENIX
7 [27] 2021
2022 J-PARC E16
2032 EIC ePIC 2035
ALICE3

2022 2 Kashiwa Dark Matter Symposium 2022
4
DC2
1
1

2022 ALICE 3
MFT
J-PARC
ALICE PHENIX
E16 2023 ePIC

A

WPI SKCM[2]
2 6 2 2
2 2021 10 1
MFT 2022

2023 1-3

ALICE 1)

2)

2

s

ALICE

B. Doenigus

MFT

1) ALICE3 MAPS

2) MAPS

MAPS

ALICE3 MAPS

2022

Magnetohydrostatic Modeling of the Solar Atmosphere with New Datasets PI: Zhu Xiaoshuai & Chifu Lulia, International Space Science Intitute

2

JAMSTEC

2022

3

1 1

[1] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , “Measurement of anti-^{3}He nuclei absorption in matter and impact on their propagation in the Galaxy”, 10.1038/s41567-022-01804-8, 19, 61-71, 2023.

[2] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , “First study of the two-body scattering involving charm hadrons”, 10.1103/PhysRevD.106.052010, 106, 052010, 2022.

[3] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , “Measurement of beauty production via non-prompt D^0 mesons in Pb-Pb collisions at $\overline{}$ = 5.02 TeV”, 10.1007/JHEP12(2022)126, 12, 126, 2022.

[4] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , “Multiplicity dependence of charged-particle jet production in pp collisions at $\bar{}$ = 13 TeV”, 10.1140/epjc/s10052-022-10405-x, E C 82, 514, 2022.

[5] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , “Nuclear modification factor of light neutral-meson spectra up to high transverse momentum in p–Pb collisions at $\overline{}$ = 8.16 TeV”, 10.1016/j.physletb.2022.136943, B 827, 136943, 2022.

[6] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , “Exploring the NΛ–NΣ coupled system with high precision correlation techniques at the LHC”, 10.1016/j.physletb.2022.137272, B 833, 137272, 2022.

[7] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , “Production of ΛΛ and Ks0Ks0 in jets in p–Pb collisions at $\overline{}$ = 5.02 TeV and pp collisions at $\bar{}$ = 7 TeV”, 10.1016/j.physletb.2022.136984, B 827, 136984, 2022.

[8] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , “Investigating the role of strangeness in baryon–antibaryon annihilation at the LHC”, 10.1016/j.physletb.2022.137060, B 829, 137060, 2022.

[9] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , “Inclusive, prompt and non-prompt J/ψ production at midrapidity in p-Pb collisions at $\overline{}$ = 5.02 TeV”, 10.1007/JHEP06(2022)011, 06, 011, 2022.

[10] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , “Measurement of K $(892)^{\pm}$ production in

inelastic pp collisions at the LHC", 10.1016/j.physletb.2022.137013, B 828, 137013, 2022.

[11] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , "Direct observation of the dead-cone effect in quantum chromodynamics", 10.1038/s41586-022-04572-w, 605, 7910, 2022.

[12] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , "Production of K $(892)^0$ and $\phi(1020)$ in pp and Pb-Pb collisions at $\overline{}$ = 5.02 TeV", 10.1103/PhysRevC.106.034907, 106, 034907, 2022.

[13] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , "Study of very forward energy and its correlation with particle production at midrapidity in pp and p-Pb collisions at the LHC", 10.1007/JHEP08(2022)086, 08, 086, 2022.

[14] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , "Hypertriton Production in p-Pb Collisions at $\overline{}$ = 5.02 TeV", 10.1103/PhysRevLett.128.252003, 128, 252003, 2022.

[15] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , "Polarization of Λ and Λbar Hyperons along the Beam Direction in Pb-Pb Collisions at $\overline{}$ = 5.02 TeV", 10.1103/PhysRevLett.128.172005, 128, 172005, 2022.

[16] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , "Measurements of the groomed and ungroomed jet angularities in pp collisions at $\overline{}$ = 5.02 TeV", 10.1007/JHEP05(2022)061, 05, 061, 2022.

[17] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , "[redacted]eneral balance functions of identified charged hadron pairs of (π,K,p) in Pb–Pb collisions at $\overline{}$ = [redacted]6 TeV", 10.1016/j.physletb.2022.137338, B 833, 137338, 2022.

[18] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , "Measurement of prompt D_s^+-meson production and azimuthal anisotropy in Pb–Pb collisions at $\overline{}$ = 5.02 TeV", 10.1016/j.physletb.2022.136986, B 827, 136986, 2022.

[19] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , "Investigating charm production and fragmentation via azimuthal correlations of prompt D mesons with charged particles in pp collisions at $\overline{}$ = 13 TeV", 10.1140/epjc/s10052-022-10267-3, C 82, 335, 2022.

[20] [redacted] Shigaki, Y. Yamaguchi, S. Yano, , "Characterizing the initial conditions of heavy-ion collisions at the LHC with mean transverse momentum and anisotropic flow correlations", 10.1016/j.physletb.2022.137393, B 834, 137393, 2022.

[21] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , "$K_S^0K_S^0$ and $K_S^0K^\pm$ femtoscopy in pp collisions at $\overline{}$ = 5.02 and 13TeV", 10.1016/j.physletb.2022.137335, B 833, 137335, 2022.

[22] S. Acharya, K. Shigaki, Y. Yamaguchi, S. Yano, , "Observation of a

energy heavy-ion collisions from a relativistic resistive magneto-hydrodynamic expansion", 10.1103/PhysRevC.107.034912, 107, 034912, 2023.

[42] K. Nakamura, T. Miyoshi, C. Nonaka, H. R. Takahashi, "Relativistic resistive magneto-hydrodynamics code for high-energy heavy-ion collisions", 10.1140/epjc/s10052-023-11343-y, C 83, 229, 2023.

[43] S. Inoue, K. Hayashi, T. Miyoshi, "An evolution and eruption of the coronal magnetic field through a data-driven MHD Simulation", 10.3847/1538-4357/ac9eaa, , 946:46, 2023.

[1] K. Shigaki, "From Bridging Quark and Hadron Hierarchies to Even Broader View of QCD World", CLUSHIQ 2022 (2022.10.31-11.3, Sendai, Japan)

[2] K. Shigaki, "High Energy Experimental Hadron Physics, Chirality in Quantum Chromo-Dynamics, and Hadrons as Meta-Matter", SKCM^2 Kickoff Symposium 2023 (2023.3.20-22, Hiroshima, Japan)

[3] Y. Yamaguchi, "Recent activities on multi-strange dibaryon searches at LHC energy", Exotics and Exotic Phenomena in Heavy Ion Collisions (ExHIC), (2022.9.29-10.1, Seoul, South Korea / online)

[4] Y. Yamaguchi, "Study of multi-strange dibaryon at the LHC energy", CLUSHIQ 2022 (2022.10.31-11.3, Sendai, Japan)

[5] Y. Yamaguchi, "Femtoscopy at the ALICE experiment", Physics of heavy-quark and exotic hadrons 2023 (2023.1.30-31, Tsukuba, Japan / online)

[6] K. Homma, "Testing a solar axion scenario with stimulated laser colliders", 30th Annual Iinternational Laser Physics Workshop (2022.7.20, online)

[7] K. Homma, "Perspective for Direct Production of Dark Components in the Universe by Multi-Wavelength Electromagnetic Field Collision", Physics Calfornia 2022 (2022.7.21, online)

[8] K. Homma, "Direct production of Dark Matter with high-intensity lasers", ELI Summer School 2022 (2022.8.31, online)

[9] K. Homma, "Step-by-Step Approach to Search for Dark Matter with Stimulated Resonant Laser Colliders", The Winter Colloquium on the Physcs of Quantum Electronics 2023 (2023.1.12, Utha, U.S.)

[10] K. Homma, "Physics with high-intensity electromagnetic fields", 2nd International Workshop on Forward Physics and Forward Calorimeter Upgrade in ALICE (2023.3.13, Tsukuba, Japan)

[1] K. Shigaki, "Plans for AC-LGAD ePIC Barrel ToF", NCU Workshop on EIC Physics and Detectors (2022.12.9-10, National Taiwan University, Taiwan)

[2] K. Nakamura, H. R. Takahashi, T. Miyoshi, C. Nonaka, "Relativistic magneto-hydrodynamics in high-energy heavy-ion collisions: Hadron distribution and flow", Quark Matter 2022 (2022.4.4-10, Jagiellonian University, Porland / online)

[3] S. Zenitani, M. Yamamoto, T. Miyoshi, "Plasmoid-dominated turbulent reconnection in symmetric and asymmetric systems", EGU General Assembly 2022 (2022.5.23-27, Austria Center Wien, Austria / online)

[4] S. Zenitani, M. Yamamoto, T. Miyoshi, "Plasmoid-dominated turbulent reconnection in symmetric and asymmetric systems", AOGS 2022 (2022.8.1-5, online)

[5] S. Inoue, K. Hayashi, T. Miyoshi, “What is better way for data-based solar magnetohydrodynamic simulations?”, SHINE 2022 (2022.6.27-7.1, Alohilani Resort Waikiki Beach, U.S.A.)

[6] Y. Kirita, K. Homma, , “Search for sub-eV axion-like particles with a development of the method for signal evaluation under the backgrounds from optical elements in a stimulated resonant photon-photon collider”, Kashiwa Dark Matter symposium 2022 (2022.11.29-12.2, The University of Tokyo, Kashiwa Campus / online)

[7] K. Kimura, “Ultra-intense magnetic field search via virtual photon polarization”, ALICE-J workshop (2022.9.29-30, Hiroshima University)

[8] K. Kimura, K. Shigaki, Y. Yamaguchi, S. Yano, , “Significance estimation for virtual photon polarization measurement with dimuons at ALICE”, Quark Matter 2022 (2022.4.4-10, Jagiellonian University, Porland / online)

[9] J. Martinez, R. Tokumoto, K. Shigaki, Y. Yamaguchi, S. Yano, ., “Status of multi-strange dibaryon and hidden strangeness pentaquark searches at the LHC with the ALICE detector”, Quark Matter 2022(2022.4.4-10, Jagiellonian University, Porland / online)

[10] R. Tokumoto, “Current status for multi-strange dibaryon searches”, ALICE-J workshop (2022.9.29-10.1, Hiroshima University)

[11] T. Ito, “Background rejection, tracking efficiency and purity, and S/B with MFT”, ALICE-J workshop (2022.9.29-10.1, Hiroshima University)

[12] H. Soeta, “Basic Development of Gbps Data Transfer System with SoC-FPGA for High Luminosity Experiments”, ALICE-J workshop (2022.9.29-10.1, Hiroshima University)

[1] _____, “ ”,
2023.3.22-25,

[1] _____, ”ALICE overview”, , ,
2022.8.18-19,

[1] , _____, ,
2022 2022.5.22-27,

[2] _____, , , , Constrained-Transport
, 2022 2022.9.13-15,

[3] _____, , , ,
, 2022 2022.9.29-30,

[4] _____, ,
152 2022.11.4-7,

[5] , _____, _____, _____, ,
, 2022 2022.9.6-8,

[6] , Multi-strange dibaryon searches in ALICE, 2022.8.18-19,

[7] , _____, _____, _____, , ALICE
, 2022 2022.9.6-8,
[8] , Current analysis status for understanding baryon-baryon interactions in flavor SU(3) in Pb+Pb collisions at ALICE, 37 Heavy Ion Pub 2022.12.16,
[9] , , _____, , , , , , 3
ALP ,
2022 2022.9.6-8,
[10] , _____, _____, _____, , ALICE Run3
, 2022 2022.9.6-8,

[11] , _____, MHD ,
2022 2022.5.22-6.3,
[12] , _____,
, 2022 2022.9.29-30,

[13] , , , _____, , , , ,
3 ALP
, 2022 2022.9.6-8,
[14] , , , _____, , , , ,
3
, 43 2023.1.18-20,

[15] , , , _____, , , , ,
3 eV ALP
, 2023 2023.3.22-25,
[16] , _____, _____, _____, SiPM RICH
, 2023 2023.3.22-25,
[17] , , , _____, , , , ,
, Liviu Neagu, Madalin-Mihai Rosu, , Ovidiu Tesileanu, , ,
ALP
, 2023 2023.3.22-25,
[18] , , _____, , GHz μeV
, 2023
2023.3.22-25,
[19] , , _____, _____, _____,
μ , 2023 2023.3.22-25,

[20] , _____, , _____, _____, ALICE Run 3
, 2023 2023.3.22-25,

○ 2
○ 9
○ 0

○ 3
○ 4
○ 4

[1] _____ 35 Heavy Ion Pub 39 Heavy Ion Café 2022 4 30 ,

[2] _____ 36 Heavy Ion Pub 2022 8 3 ,
[3] _____ 37 Heavy Ion Pub 2022 12 16 ,
[4] _____ , ,
2022 8 18 -19 ,

[1] _____
[2] _____
[3] _____
[4] _____ QCD
[5] _____ 4
[6] _____
[7] _____
[8] _____
[9] _____ SGEPSS

[1] _____ KEK Zoom 2022.4.15
[2] _____ 2023.2.20-23, 2022 CfCA ,

[3] _____ 2023.2.20-23, 2022 CfCA ,

[4] _____ B = 0 2023.2.20-23, 2022 CfCA ,

[1] _____

[2] _____
[3] _____

[1] _____, _____, _____ PHENIX BNL
[2] _____, _____, _____ ALICE CERN
[3] _____, _____ ePIC BNL
[4] _____ Extreme Light Infrastructure Nuclear Physics(ELI-NP)
IFIN-HH
[5] _____

[6] _____

[1] _____ Strange Quark Matter 2022 2022.6.13-18,
[2] _____ International Nuclear Physics Conference 2022 2022.9.11-16,

[1] _____ , , 2022.7.13,

[2] _____ 2022.7.19

[1] _____ , ( ) 2022 , 20,100

[2] _____ , (A) 2022 , 7,400

[3] _____ 2022 , 400 ALICE Forward Upgrade for High Precision High Statistics Single- and Di-Muon Measurements at the LHC
[4] _____ 2022 , 350 Probing extremely hot partonic matter properties via high precision muon measurements at the ALICE experiment
[5] _____ , (B) 2022 , 600

[6] _____ , (A) 2022 , 22,230
XENON1T
[7] _____ 2022 , 1,320

[8] _____ , (C) 2022 , 700

[9] _____ , (S) 2022 , 150
QCD QCD

2022 TeV
X IXPE X
HinOTORI

4 6
Core-U

[A - EGA]
15

2

BL Lac

2021 HI 21cm
MBM53-55 Pegasus loop
dark gas
Fermi Tibet AS-
gamma

TeV MAGIC
GRB 201216C TeV z = 1.1
GRB 201015A

TeV CTA LST1
MAGIC TeV

30%

[G NC dr r]

X IXPE 2021 12 1
22 1 Science Collaborator
CasA

X-1 Zhang

X XRISM
X Mrk 6
XMM-Newton

NGC4636, NGC5128

[ ]

2023 X XRISM

X

2022 12
X CCD

X X(L)-Calibur
2018 2022 7 12-18
FFAST

2024
um X CMOS

CAMELOT
GRB-alpha 2021 3 2 VZLUSAT-2
2022 1 3 (GRB beta)
2022 10 9
MPPC

MeV AMEGO-X (MIDEX)

1MeV SGD

AMEGO-X HV-CMOS AstroPix
1 online
AstroPix ver.2
AstroPix Workshop

SOI XRPIX

XRPIX β
XRPIX
MeV GRAMS TPC
MPPC

[
200 1.5m
X

2017 8

2018 7
2020-22
10

HONIR
HOWPol

2022

2022 10 188cm
2023
1
PI
2022
X
X BL Lac
X

3.8m

Gangopadhyay Singh 2022

IIn

IceCube

2022 HONIR

Smart-Kanata

Smart-Kanata WZ Uma

HONIR

3 IceCube

OISTER 2011 OISTER

2022 5 71

IRAF

2022

HONIR

InGaAs

1.3k×1.3k

[

ALMA Co-PI

ALMA REBELS

Algera

JWST 2022

co-I ERS

Bohn

50cm

HinOTORI 2012

2022

ÆÃ

[13] “Optical performance of the x-ray telescope for the XL-Calibur experiment”, Kamogawa W, Fukazawa Y. (11th), Mizuno Y. (34th), Takahashi H. (45th), 51 , 2022, Proc. SPIE 12181, id.1218171, 9pp.

[14] “Xappl: software framework for the XRISM pre-pipeline”, Eguchi S., Takahashi H. (4th), Mizuno T. (6th), Fukazawa Y. (16th), 34 2022, Proc. SPIE, 12181, id.1218161, 7pp.

[15] “A broadband x-ray imaging spectroscopy in the 2030s: the FORCE mission”, Mori K., Fukazawa Y. (13th), Mizuno T. (32th), Takahashi H. (41th), 44 2022, Proc. SPIE, 12181, id.1218122, 1 ppth

[16] “Early results from GRBAlpha and VZLUSAT-2”, Ripa J., Takahashi H.(23th), Fukazawa Y. (29th), Mizuno T. (35th), 36 2022, Proc. SPIE 12181, id.121811K, 11pp.

[17] “The design and performance of the XL-Calibur anticoincidence shield”, Iyer N.K.,Takahashi H.(25th), 32 2023, NIM-A, 1048, 167975

[18] “Performance of the X-Calibur hard X-ray polarimetry mission during its 2018/19 long-duration balloon flight”, Abarr Q., Takahashi H.(28th), 29 2022, Astroparticle Physics, 143, 102749

[19] “Narrow Fe-Kα Reverberation Mapping Unveils the Deactivated Broad-line Region in a Changing-look Active Galactic Nucleus”, Noda H., Kawabata K. S.(13th), Fukazawa Y.(14th), 12 , 2023, ApJ 943, id.63, 13pp.

[20] “Transient obscuration event captured in NGC 3227. III. Photoionization modeling of the X-ray obscuration event in 2019”, Mao J., Fukazawa Y.(17th), 17 , 2022, Astronomy & Astrophysics 665, id.A72, 11pp.

[21] “Relationship between gamma-ray loudness and X-ray spectra of radio galaxies”, Kayanoki T., Fukazawa Y., 2022, PASJ 74, 791-804

[22] “High-energy Emission Component, Population, and Contribution to the Extragalactic Gamma-Ray Background of Gamma-Ray-emitting Radio Galaxies”, Fukazawa Y., Matake H., Kayanoki T., Inoue Y., Finke J, 2022, ApJ 931, id.138, 19pp.

[23] “The IXPE View of GRB 221009A”, Negro M., Mizuno T.(87th), et al. (total 112 authors), ApJ 946, 21 (2023)

[24] “X-Ray Polarimetry Reveals the Magnetic-field Topology on Sub-parsec Scales in Tycho's Supernova Remnant”, Ferrazzoli R, Mizuno T.(17th), et al. (total 100 authors), ApJ 945, 52 (2023)

[25] “A Strong X-Ray Polarization Signal from the Magnetar 1RXS J170849.0-400910”, Zane S., Mizuno T. (70th), et al. (total 102 authors), ApJ 944, 27 (2023)

[26] “Polarization Properties of the Weakly Magnetized Neutron Star X-Ray Binary GS 1826-238 in the High Soft State”, Capitanio F., Mizuno T.(63th), et al. (total 97 authors), ApJ 943, 129 (2023)

[27] “X-Ray Polarization Observations of BL Lacertae”, Middei R., Imazawa R. (57th), Fukazawa Y. (59th), Kawabata K. (60th), Uemura M. (61th), Mizuno T. (62th), Nakaoka T. (63th), et al. (total 147 authors), ApJ 942, 10 (2023)

[28] “Accretion geometry of the neutron star low mass X-ray binary Cyg X-2 from X-ray polarization measurements”, Farinelli R., Mizuno T. (59th), et al. (total 95 authors), MMNRAS 519, 3690 (2023)

[29] “Mapping the circumnuclear regions of the Circinus galaxy with the Imaging X-ray Polarimetry Explorer”, Ursini F, Mizuno T. (66th), et al. (total 97 authors), MNRAS 519, 50 (2023)

[30] “Vela pulsar wind nebula X-rays are polarized to near the synchrotron limit”, Xie F., Mizuno T. (63th), et al. (total 93 authors), Nature 612, 658 (2022)

[31] “The X-Ray Polarimetry View of the Accreting Pulsar Cen X-3”, Tsygankov S., Mizuno T. (64th), et al.

(total 99 authors), ApJL 941, 14 (2022)
[32] “Polarized blazar X-rays imply particle acceleration in shocks”, Liodakis I., Mizuno T. (99th), et al. (total 128 authors), Nature 611, 677 (2022)
[33] “Observations of 4U 1626-67 with the Imaging X-Ray Polarimetry Explorer”, Marshall H., Mizuno T. (57th), et al. (total 95 authors), ApJ 940, 70 (2022)
[34] “Polarized x-rays from a magnetar”, Taverna R., Mizuno T. (68th), et al. (total 96 authors), Science 378, 646 (2022)
[35] “Polarized x-rays constrain the disk-jet geometry in the black hole x-ray binary Cygnus X-1”, Krawczynski H., Mizuno T. (34th), Zhang S. (48th), et al. (total 114 authors), Science 378, 650 (2022)
[36] “Determination of X-ray pulsar geometry with IXPE polarimetry”, Doroshenko V., Mizuno T. (65th), et al. (total 94 authors), Nature Astronomy 6, 1433 (2022)
[37] “Polarization constraints on the X-ray corona in Seyfert Galaxies: MCG-05-23-16”, Marinucci A., Mizuno T. (65th), et al. (total 100 authors), MNRAS 516, 5907 (2022)
[38] “The X-Ray Polarization View of Mrk 421 in an Average Flux State as Observed by the Imaging X-Ray Polarimetry Explorer”, Di Gesu L., Mizuno T. (70th), et al. (total 103 authors), ApJL 938, 7 (2022)
[39] “X-Ray Polarization Detection of Cassiopeia A with IXPE”, Vink J., Mizuno T. (13th), et al. (total 95 authors), ApJ 938, 40 (2022)
[40] “Limits on X-ray Polarization at the Core of Centaurus A as Observed with the Imaging X-ray Polarimetry Explorer”, Ehlert S., Mizuno T. (61th), et al. (total 99 authors), ApJ 935, 116 (2022)
[41] “All-sky Medium Energy Gamma-ray Observatory eXplorer mission concept”, Caputo R., Fukazawa Y. (16th), Suda Y. (46th), and 52 coauthors, Journal of Astronomical Telescopes, Instruments, and Systems, 8, 4 (2022)
[42] “Tomography of the environment of the COSMOS/AzTEC-3 submillimeter galaxy at z 5.3 revealed by Lyα and MUSE observations”, Guaita L., Algera H.S.B.(9th), et al., Astronomy and Astrophysics, 660, A137 (2022)
[43] “Statistical Properties of the Nebular Spectra of 103 Stripped-envelope Core-collapse Supernovae”, Fang Q., Kawabata K.S. (5th), et al., The Astrophysical Journal, 928, 151 (2022)
[44] “SN 2020jfo: A Short-plateau Type II Supernova from a Low-mass Progenitor”, Teja R. S., Singh A., et al., The Astrophysical Journal, 930, 34 (2022)
[45] “First Sagittarius A* Event Horizon Telescope Results. I. The Shadow of the Supermassive Black Hole in the Center of the Milky Way”, Event Horizon Telescope Collaboration, Sasada M., et al., The Astrophysical Journal, 930, L12 (2022)
[46] “First Sagittarius A* Event Horizon Telescope Results. II. EHT and Multiwavelength Observations, Data Processing, and Calibration”, Event Horizon Telescope Collaboration, Sasada M., et al., The Astrophysical Journal, 930, L13 (2022)
[47] “First Sagittarius A* Event Horizon Telescope Results. III. Imaging of the Galactic Center Supermassive Black Hole”, Event Horizon Telescope Collaboration, Sasada M., et al., The Astrophysical Journal, 930, L14 (2022)
[48] “First Sagittarius A* Event Horizon Telescope Results. IV. Variability, Morphology, and Black Hole Mass”, Event Horizon Telescope Collaboration, Sasada M., et al., The Astrophysical Journal, 930, L15 (2022)
[49] “First Sagittarius A* Event Horizon Telescope Results. V. Testing Astrophysical Models of the Galactic

Center Black Hole", Event Horizon Telescope Collaboration, Sasada M., et al., The Astrophysical Journal, 930, L16 (2022)

[50] "First Sagittarius A* Event Horizon Telescope Results. VI. Testing the Black Hole Metric", Event Horizon Telescope Collaboration, et al., The Astrophysical Journal, 930, L17 (2022)

[51] "Selective Dynamical Imaging of Interferometric Data", Farah J., Sasada M., et al., The Astrophysical Journal, 930, L18 (2022)

[52] "Millimeter Light Curves of Sagittarius A* Observed during the 2017 Event Horizon Telescope Campaign", Wielgus M., Sasada M., et al., The Astrophysical Journal, 930, L19 (2022)

[53] "A Universal Power-law Prescription for Variability from Synthetic Images of Black Hole Accretion Flows", Georgiev B., Sasada M., et al., The Astrophysical Journal, 930, L20 (2022)

[54] "Characterizing and Mitigating Intraday Variability: Reconstructing Source Structure in Accreting Black Holes with mm-VLBI", Broderick A. E., Sasada M., et al., The Astrophysical Journal, 930, L21 (2022)

[55] "The ALMA REBELS Survey. Epoch of Reionization giants: Properties of dusty galaxies at z ≈ 7", Ferrara A., Inami H. (7th), Algera H.S.B. (23th) et al., Monthly Notices of the Royal Astronomical Society, 512, 58 (2022)

[56] "The ALMA REBELS survey: the dust content of z 7 Lyman break galaxies", Dayal P., Algera H.S.B. (12th), Inami H. (19th), et al., Monthly Notices of the Royal Astronomical Society, 512, 989 (2022)

[57] "Reionization Era Bright Emission Line Survey: Selection and Characterization of Luminous Interstellar Medium Reservoirs in the z > 6.5 Universe", Bouwens R. J., Inami H. (8th), Algera H. (25th), et al., The Astrophysical Journal, 931, 160 (2022)

[58] "Photometric calibrations and characterization of the 4K×4K CCD imager, the first-light axial port instrument for the 3.6m DOT", Kumar A., Singh A. (3rd), et al., Journal of Astrophysics and Astronomy, 43, 27 (2022)

[59] "Measuring Star Formation and Black Hole Accretion Rates in Tandem Using Mid-infrared Spectra of Local Infrared Luminous Galaxies", Stone M., Inami H. (6th), et al., The Astrophysical Journal, 934, 27 (2022)

[60] "The ALMA REBELS Survey: cosmic dust temperature evolution out to z~7", Sommovigo L., Inami H. (11th), Algera H. (23th), et al., Monthly Notices of the Royal Astronomical Society, 513, 3122 (2022)

[61] "The ALMA REBELS Survey: Average [C II] 158 μm Sizes of Star-forming Galaxies from z 7 to z 4", Fudamoto Y., Inami H. (7th), Algera H.S.B. (12th), et al., The Astrophysical Journal, 934, 144 (2022)

[62] "Resolving the Inner Parsec of the Blazar J1924-2914 with the Event Horizon Telescope", Issaoun S., Sasada M., et al., The Astrophysical Journal, 934, 145 (2022)

[63] "The ALMA REBELS Survey: The Cosmic H I Gas Mass Density in Galaxies at z ≈ 7", Heintz K. E., Inami H. (9th), et al., The Astrophysical Journal, 934, L27 (2022)

[64] "India's First Robotic Eye for Time-domain Astrophysics: The GROWTH-India Telescope", Kumar H., Singh A. (23th), et al., The Astronomical Journal, 164, 90 (2022)

[65] "The ALMA REBELS Survey: dust continuum detections at z > 6.5", Inami H., et al., Monthly Notices of the Royal Astronomical Society, 515, 3126 (2022)

[66] "The Quest for New Correlations in the Realm of the Gamma-Ray Burst-Supernova Connection", Dainotti M. G., Gangopadhyay A. (8th), et al., The Astrophysical Journal, 938, 41 (2022)

[67] "The ALMA REBELS Survey: specific star formation rates in the reionization era", Topping M. W., Inami H. (8th), et al., Monthly Notices of the Royal Astronomical Society, 516, 975 (2022)

[68] “(3200) Phaethon polarimetry in the negative branch: new evidence for the anhydrous nature of the DESTINY⁺ target asteroid”, Geem J., Kawabata K.S. (5th), Nakaoka T. (6th), et al., Monthly Notices of the Royal Astronomical Society, 516, L53 (2022)

[69] “Optical and near-infrared photometric and polarimetric monitoring at flaring state of BL Lacertae in 2020-2021”, Hazama N., Sasada M., Fukazawa Y., Kawabata K.S., et al., Publications of the Astronomical Society of Japan, 74, 1041 (2022)

[70] “Investigating the Effect of Galaxy Interactions on Star Formation at 0.5 < z < 3.0”, Shah E. A., Inami H. (15th), et al., The Astrophysical Journal, 940, 4 (2022)

[71] “Characterizing Compact 15-33 GHz Radio Continuum Sources in Local U/LIRGs”, Song Y., Inami H. (14th), et al., The Astrophysical Journal, 940, 52 (2022)

[72] “GOALS-JWST: Resolving the Circumnuclear Gas Dynamics in NGC 7469 in the Mid-infrared”, U V., Inami H. (20th), Bohn T. (24th), et al., The Astrophysical Journal, 940, L5 (2022)

[73] “GOALS-JWST: Unveiling Dusty Compact Sources in the Merging Galaxy IIZw096”, Inami H., et al., The Astrophysical Journal, 940, L6 (2022)

[74] “GOALS-JWST: Hidden Star Formation and Extended PAH Emission in the Luminous Infrared Galaxy VV 114”, Evans A. S., Inami H. (5th), Bohn T. (24th), et al., The Astrophysical Journal, 940, L8 (2022)

[75] “GROWTH on S190426c II: GROWTH-India Telescope search for an optical counterpart with a custom image reduction and candidate vetting pipeline”, Kumar H., Singh A. (19th), et al., Monthly Notices of the Royal Astronomical Society, 516, 4517 (2022)

[76] “An Ultra-deep Multiband Very Large Array (VLA) Survey of the Faint Radio Sky (COSMOS-XS): New Constraints on the Cosmic Star Formation History”, van der Vlugt D., Algera H.S.B. (3rd), et al., The Astrophysical Journal, 941, 10 (2022)

[77] “The JCMT BISTRO Survey: A Spiral Magnetic Field in a Hub-filament Structure, Monoceros R2”, Hwang J., Kawabata K.S., et al., The Astrophysical Journal, 941, 51 (2022)

[78] “The JCMT BISTRO-2 Survey: Magnetic Fields of the Massive DR21 Filament”, Ching T.-C., Kawabata K.S., et al., The Astrophysical Journal, 941, 122 (2022)

[79] “GOALS-JWST: Tracing AGN Feedback on the Star-forming Interstellar Medium in NGC 7469”, Lai T. S.-Y., Inami H. (11th), Bohn T. (12th), et al., The Astrophysical Journal, 941, L36 (2022)

[80] “A global look into the world of interacting supernovae”, Gangopadhyay A., et al., Journal of Astrophysics and Astronomy, 43, 51 (2022)

[81] “Optical studies of a bright Type Iax supernova SN 2020rea”, Singh M., Gangopadhyay A. (11th), et al., Monthly Notices of the Royal Astronomical Society, 517, 5617 (2022)

[82] “The REBELS ALMA Survey: efficient Ly α transmission of UV-bright z 7 galaxies from large velocity offsets and broad line widths”, Endsley R., Inami H. (7th), et al., Monthly Notices of the Royal Astronomical Society, 517, 5642 (2022)

[83] “PNV J00444033+4113068: Early superhumps with 0.7 mag amplitude and non-red color”, Tampo Y., Uemura M. (4th), et al., Publications of the Astronomical Society of Japan, 74, 1287 (2022)

[84] “GOALS-JWST: NIRCam and MIRI Imaging of the Circumnuclear Starburst Ring in NGC 7469”, Bohn T., et al., The Astrophysical Journal, 942, L36 (2023)

[85] “GOALS-JWST: Mid-infrared Spectroscopy of the Nucleus of NGC 7469”, Armus L., Inami H. (11th), Bohn T. (23th), et al., The Astrophysical Journal, 942, L37 (2023)

[86] “NuSTAR Observes Two Bulgeless Galaxies: No Hard X-Ray AGN Detected in NGC 4178 or

J0851+3926", Pfeifle R. W., Bohn T. (6th), et al., The Astrophysical Journal, 943, 109 (2023)

[87] "The Event Horizon Telescope Image of the Quasar NRAO 530", Jorstad S., Sasada M., et al., The Astrophysical Journal, 943, 170 (2023)

[88] "JCMT BISTRO Observations: Magnetic Field Morphology of Bubbles Associated with NGC 6334", Tahani M., Kawabata K.S., et al., The Astrophysical Journal, 944, 139 (2023)

[89] "SN 2020uem: a Possible Thermonuclear Explosion within a Dense Circumstellar Medium. I. The Nature of Type IIn/Ia-CSM SNe from Photometry and Spectroscopy", Uno K., Nakaoka T. (4th), et al., The Astrophysical Journal, 944, 203 (2023)

[90] "SN 2020uem: a Possible Thermonuclear Explosion within a Dense Circumstellar Medium (II). The Properties of the CSM from Polarimetry and Light-curve Modeling", Uno K., Kawabata K.S. (5th), Nakaoka T. (6th), et al., The Astrophysical Journal, 944, 204 (2023)

[91] "GOALS-JWST: Pulling Back the Curtain on the AGN and Star Formation in VV 114", Rich J., Inami H. (7th), Bohn T. (21th), et al., The Astrophysical Journal, 944, L50 (2023)

[92] "GOALS-JWST: Revealing the Buried Star Clusters in the Luminous Infrared Galaxy VV 114", Linden S. T., Inami H. (9th), Bohn T. (10th), et al., The Astrophysical Journal, 944, L55 (2023)

[93] "The ALMA REBELS survey: the dust-obscured cosmic star formation rate density at redshift 7", Algera H. S. B., Inami H., et al., Monthly Notices of the Royal Astronomical Society, 518, 6142 (2023)

[94] "The main sequence of star-forming galaxies across cosmic times", Popesso P., Inami H. (6th), et al., Monthly Notices of the Royal Astronomical Society, 519, 1526 (2023)

[95] "The micÓ et m Ę l T

Astrophysics” (invited),

[2] _____, “Exploring the Early Universe with ALMA2030”, ,
+ , 2023.3.27-28
[3] _____, “Initial Results of X-ray Polarimetry Mission IXPE”, High Energy Astrophysics Workshop 2022, 2022.11.10, Hiroshima
[4] _____, “ ”, 2022, 2022.11.7, 100 ,
[5] _____, “ SPICA WG ”, 2022
2030 : ,
2022.9.20-22, 100
[6] _____, “OISTER”, 2022 2030
: , 2022.9.20-22, 100

[1] _____, “IXPE View of Crab Nebula and Pulsar” , Space Science Symposium, 2023.1.5-6, ISAS/JAXA, Kanagawa, Japan & online
[2] _____, “IXPE View of Crab Nebula and Pulsar”, 2022 Summer Workshop on Neutron-Starts, Supernova Remnants and Related Objects, 2022.8.30, Yamagata Univ.
[3] , “Ionized wind in radio-loud AGN”, 1 XRISM core-to-core Science Workshop, 2022.10.19-21, , 100
[4] , “Ionized wind in radio-loud AGN”,
2023, 2023.3.1-2, , 50
[5] _____, MeV AMEGO-X , ,
2022.9.13-15,
[6] _____, X XL-Calibur 2022 ,
, 2022.9.13-15,
[7] _____, MeV HV-CMOS AstroPix ,
, 2022.9.13-15,
[8] , IIb SN 2019tua , , 2022.9.13-15,

[9] , JWST LIRG NGC7469
, , 2022.9.13-15,
[10] , , , 2022.9.13-15,

[11] , , ,
2022.9.13-15,
[12] , loudness X (2) , , 2022.9.13-15,

[13] , Smart Kanata 3 WZ Sge , ,
2022.9.13-15,
[14] , MPPC , ,
2022.9.13-15,
, [15] ,

2022ť9.13-15, ŧ . R
[16] , MPPC ,
, 2022.9.13-15,
[17] , SOI X 53:MeV
SOI , ţ

2023, , 2023.2.21, 60

- 3
- 3
- 2

- 25
- 6
- 2

[1] , , 2022 7 29 , 50 , , , , , , ,

[1] _____, Transient workshop 2022/ 2022 2022 11 22 -24 , , 36

[2] _____, Indo-Japan SN Workshop 2023 3 27 , HASC, Horoshima Univ. , 15

[1] _____ Subaru Users Meeting 2022, 2023.1.31-2.2, ,

[2] _____ “Obscured Star Formation at z~7 Observed with the REBELS ALMA Large Program”, European Space Agency seminar, 2022.6.16,

[3] _____ “AGN or starburst? An off-nuclear deeply embedded compact source in IIZw096”, International AGN Seminar Series, 2022.11.8,

[4] _____ “An ALMA Systematic Survey of Distant Galaxies: Obscured Star Formation at z~7”, ALMA-J seminar, 2023.3.1,

[1] _____

[2] _____

[3] _____ MeV

[3] _____, _____, MeV AMEGO-X, , MeV AMEGO-X
[4] _____, _____, _____, MeV GRAMS, , , , , , MeV GRAMS
[5] _____, _____, _____, Prof. Mark Piece , , , “ CUBES, GRB SPHiNX ”
[6] _____, _____, _____, IXPE , , , , , , X IXPE
[7] _____, _____, _____, _____, CTA collaboration , 200 , 20 , TeV 65%
[8] _____, _____, MAGIC collaboration 150 , TeV
[9] _____, _____, _____, Masaryk , Conkoly , Eotvos , , , , SGRB Camelot
[10] _____, _____, _____, , Prof. Henric Krawczynski , , , , X X-Calibur
[11] , , IceCube collaboration , ,

[22] _____, Mark Dickinson, , National Optical Astronomy Observatory, USA ,

[23] _____, MUSE Consortium, France, Netherlands, Germany, Switzerland, Portugal ,
MUSE
[24] , Event Horizon Telescope Collaboration, Harverd University, MIT, NAOJ ,

[25] _____, Rychard Bouwens, , Leiden University , , , , ALMA
REBELS
[26] _____, Desika Narayanan ,

[1]

[2] _____ X 2022.11.25

Kim Sangwook 3

SPring-8 X

SPring-8

30

X

X

Bgagg

Coherent Diffraction Imaging (BCDI)

X

SPring-8 BL22XU

4 500 nm

3

8 14

BCDI

SPring-8 BL02B2

$BaTiO_3$ $BiFeO_3$

BCDI

33

M1

SPring-8 BL02B1 AC

50

BL02B2

2

A 1000

12 2

2023

SPring-8 BL02B2
2021
2022

JASRI

Bull.

Chem. Soc. Jpn. Selected Paper
JASRI

Catalysis Science & Technology Cover Art

Kim

15

IAAM Award European Advanced Materials Congress

[1] P. Sapkota, I. Fujii, S. Kim, S. Ueno, C. Moriyoshi, Y. Kuroiwa and S. Wada, “Mn-Nb Co-doping in Barium Titanate Ceramics by Different Solid-state Reaction Routes for Temperature Stable and DC-bias Free Dielectrics”, **26** (2022) 2154-2160.

[2] N. Li, S. Wang, E. Zhao, W. Yin, Z. Zhang, K. Wu, J. Xu, Y. Kuroiwa, Z. Hu, F. Wang, J. Zhao and X. Xiao, “Tailoring Interphase Structure to Enable High-rate, Durable Sodium-ion Battery Cathode”, **46** (2022) 564-571.

[3] F. I. Abbas, K. Hoshi, A. Yamashita, Y. Nakahira, Y. Goto, A. Miura, C. Moriyoshi, Y. Kuroiwa, K. Terashima, R. Matsumoto, Y. Takano and Y. Mizuguchi, “Lattice Anharmonicity in BiS_2-Based Layered Superconductor (O, F)BiS_2 (= La, Ce, Pr, Nd)”, **7**/ (2022) 074706/1-6.

[4] N. Oshime, K. Ohwada, A. Machida, N. Fukushima, S. Ueno, I. Fujii, S. Wada, K. Sugawara, A. Shimada, T. Ueno, T. Watanuki, K. Ishii, H. Toyokawa, K. Momma, S. Kim, S. Tsukada and Y. Kuroiwa, “The Ferroelectric Phase Transition in a 500 nm Sized Single Particle of $BaTiO_3$ Tracked by Coherent X-

ray Diffraction”, **4**/ (2022) SN1008/1-6.

[5] H. Nam, I. Fujii, S. Kim, T. Ishii, S. Ueno, G. P. Khanal, Y. Kuroiwa and S. Wada, “Composition Dependence of Structural and Piezoelectric Properties in $Bi(Mg_{0.5}Ti_{0.5})O_3$-modified $BaTiO_3$-$BiFeO_3$ ceramics”, **4**/ (2022) SN1033/1-9.

[6] P. Sapkota, I. Fujii, S. Kim, S. Ueno, Y. Kuroiwa and S. Wada, “Development of Superparaelectric $BaTiO_3$ System Ceramics through Heterovalent Mn-Nb Co-doping for DC-bias Free Dielectrics”, **4**/ (2022) SN1023/1-6.

[7] S. Kim, H. Nam and I. Calisir, “Lead-free $BiFeO_3$-based Piezoelectrics: A Review of Controversial Issues and Current Research State”, /**3** (2022) 4388/1-26.

[8] Y. Yoneda, S. Kim, S. Mori and S. Wada, “Local Structure Analysis of $BiFeO_3$-$BaTiO_3$ Solid Solution”, **4**/ (2022) SN1022/1-10.

[9] Y. Nakahira, R. Kiyama, A. Yamashita, H. Itou, A. Miura, C. Moriyoshi, Y. Goto, and Y. Mizuguchi, “Tuning of upper critical field in a vanadium-based A15 superconductor by the compositionall-complex-alloy concept”, **35** (2022) 15990-15998.

[10] Y. Matsuo, Y. Matsukawa, M. Kitakado, G. Hasegawa, S. Yoshida, R. Kubonaka, Y. Yoshida, T. Kawasaki, E. Kobayashi, C. Moriyoshi, S. Ohno, K. Fujita, K. Hayashi, and H. Akamatsu, “Topochemical Synthesis of $LiCoF_3$ with High-Temperature $LiNbO_3$-type Structure”, **4**/ (2022) 11746-11756.

[11] F. I. Abbas, Y. Nakahira, A. Yamashita, T. Md. Kasem, M. Yoshida, Y. Goto, A. Miura, K. Terashima, T. Matsumoto, Y. Takano, C. Moriyoshi, and Y. Mizuguchi, “Estimation of Gruneisen parameter of high-entropy-alloy-type functional materials”, **5** (2022) 34.

[12] Y. Nakahira, S. Shimono, Y. Goto, A. Miura, C. Moriyoshi, and Y. Mizuguchi, “Synthesis and characterization of high-entropy-alloy-type layered telluride MBi_2Te_4 (M = Ag, In, Sn, Pb, Bi)”, /**3** (2022) 2614.

[13] R. Sasai, T. Fujimura, H. Sato, E. Nii, M. Sugata, Y. Nakayashiki, H. Hoashi, C. Moriyoshi, E. Oishi, Y. Fujii, S. Kawaguchi, and H. Tanaka, “Origin of Selective Nitrate Removal by Ni^{2+}–Al^{3+} Layered Double Hydroxides in Aqueous Media and Its Application Potential in Seawater Purification”, **73** (2022) 802-812.

[1] S. Kim, “Actuation Mechanism of Piezoelectricity by Cation Disordering in Pseudo-cubic Structure”, European Advanced Materials Congress, (2022.6.25-7.2, Genoa, Italy, Hybrid (Online)).

IAAM Award

[2] S. Kim, “Study of Mechanism on Piezoelectricity in Pseudo-cubic Structure by Material Structural Physics”, International Conference on Physics and Its Applications, (2022.7.18-21, San Francisco, USA, Hybrid (Online)).

[3] Y. Kuroiwa, “Structural Study on Emergent Ferroelectricity in Perovskite-type Oxides by Synchrotron Radiation X-ray Diffraction”, 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15), (2022.8.28-31, Kofu, Hotel Danrokan, Japan).

[4] S. Kim, “Contribution of -site Cation Off-centering on the Piezoelectricity and Domain Structure in Bi-based Lead-free Piezoceramics”, 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15), (2022.8.28-31, Kofu, Hotel Danrokan, Japan).

[5] Y. Kuroiwa, “Synchrotron Radiation X-ray Diffraction Evidence for Chemical Bonding of Ferroelectric Ceramic Powders and Grain Orientations in Their Films Coated by Aerosol Deposition Method”, 9th Tsukuba International Coating Symposium (TICS 9), (2022.12.12-13, Tsukuba, Auditorium, National Institute of Advanced Industrial Science and Technology (AIST), Japan).

[1] K. Ohwada, N. Oshime, K. Sugawara, A. Shimada, N. Fukushima, T. Ueno, A. Machida, T. Watanuki, S. Ueno, I. Fujii, S. Wada, K. Momma, K. Ishii, H. Toyokawa, S. Tsukada and Y. Kuroiwa, “3D Imaging of Nanocrystals by Coherent X-ray Diffraction”, 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15), (2022.8.28-31, Kofu, Hotel Danrokan, Japan).

[2] N. Fukushima, S. Kim, S. Ueno, I. Fujii, S. Wada and Y. Kuroiwa, “SXRD Electron Density Study on Phase Transitions in $BaTiO_3$ Nanocube”, 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15), (2022.8.28-31, Kofu, Hotel Danrokan, Japan).

[3] T. Hokii, S. Kim, Y. Yatabe, Y. Nakahira, C. Moriyoshi, H. Osawa, M. Hirose, I. Fujii, S. Ueno, Y. Sato, S. Wada and Y. Kuroiwa, “Piezoelectricity Caused by Partial Ordering of Bismuth-ions in Perovskite-type Pseudo-cubic Ferroelectrics”, 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15), (2022.8.28-31, Kofu, Hotel Danrokan, Japan).

[4] M. Shao, K. Furuta, S. Kim, I. Fujii, S. Ueno, S. Wada and Y. Kuroiwa, “Core-Shell Structure of Heteroepitaxial $KNbO_3/BaTiO_3$ Nanocomposite Particles Studied by Synchrotron Radiation X-ray Diffraction”, 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15), (2022.8.28-31, Kofu, Hotel Danrokan, Japan).

[5] T. Shigemasu, S. Kim, C. Moriyoshi, G. Li, C.-H. Park and Y. Kuroiwa, “Electron Charge Density Study on Antiferroelectric Phase Transition in Pb-based B-site Ordered Double Perovskite”, 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15), (2022.8.28-31, Kofu, Hotel Danrokan, Japan).

[6] G. P. Khanal, I. Fujii, S. Ueno, S. Kim, M. Miyakawa, T. Taniguchi, Y. Kuroiwa and S. Wada, “Structural and Electrical Characteristics of Lead-free $BiAlO_3$-based Piezoelectric Ceramics Prepared by High-Pressure Sintering”, 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15), (2022.8.28-31, Kofu, Hotel Danrokan, Japan).

[7] H. Nam, S. Kim, I. Fujii, S. Ueno, Y. Kuroiwa and S. Wada, “A-site Bi ion Off-centering Contribution on Piezoelectricity in $Bi(Mg_{0.5}Ti_{0.5})O_3$-modified $BiFeO_3$-$BaTiO_3$ Piezoelectric Ceramics”, 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15),

(2022.8.28-31, Kofu, Hotel Danrokan, Japan).

[8] P. Sapkota, I. Fujii, S. Kim, S. Ueno, Y. Kuroiwa and S. Wada, “Inducing Superparaelectricity in $BaTiO_3$ Ceramics through Heterovalent Co-doping for DC-bias Free Dielectrics”, 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15), (2022.8.28-31, Kofu, Hotel Danrokan, Japan).

[9] Y. Yoneda, H. Nam, S. Ueno, I. Fujii, S. Kim and S. Wada, “Nanoscale Structure Analysis of Ferroelectric Materials”, 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15), (2022.8.28-31, Kofu, Hotel Danrokan, Japan).

[10] N. Oshime, K. Ohwada, K. Sugawara, A. Shimada, N. Fukushima, T. Ueno, A. Machida, T. Watanuki, S. Ueno, I. Fujii, S. Wada, K. Momma, K. Ishii, H. Toyokawa, S. Kim, S. Tsukada and Y. Kuroiwa, “Bragg Coherent X-ray Diffraction for Visualization of the Inhomogeneous Structure of a Single Ferroelectric Particle”, 14th Japan-China Symposium on Ferroelectric Materials and Their Applications (JCFMA-14), (2022.12.8-9, Kanazawa, Kanazawa Bunka Hall, Japan).

[11] T. Shigemasu, S. Kim, C. Moriyoshi, G. Li, C.-H. Park and Y. Kuroiwa, “Characteristics of Chemical Bonding and Thermal Behavior of Atoms in Prototype Structure of Double Perovskite-type Antiferroelectric Oxides”, 14th Japan-China Symposium on Ferroelectric Materials and Their Applications (JCFMA-14), (2022.12.8-9, Kanazawa, Kanazawa Bunka Hall, Japan).

[12] M. Shao, K. Furuta, S. Kim, I. Fujii, S. Ueno, S. Wada and Y. Kuroiwa, “Crystal Structure of $KNbO_3/BaTiO_3$ Core-Shell Nanocomposite Particles Studied by Synchrotron Radiation X-ray Diffraction”, 14th Japan-China Symposium on Ferroelectric Materials and Their Applications (JCFMA-14), (2022.12.8-9, Kanazawa, Kanazawa Bunka Hall, Japan).

[13] H. Ito, Y. Nakahira, C. Moriyoshi, N. Ishimatsu, Y. Goto, Y. Mizuguchi, N. C. Rosero-Navarro, A. Miura, and K. Tadanaga, “Large Rare-Earth Ions Kinetically Stabilize Metastalbe Li_3LnCl_6 (Ln: lanthanoids) Polymorphs”, IUMRS-ICYRAM 2022 (2022.8.3-6, Fukuoka, Japan).

[14] T. Hara, M. Habe, H. Nakanishi, T. Fujimura, R. Sasai, C. Moriyoshi, S. Kawaguchi, N. Ichikuni, and S. Shimazu, “Specific Inter-gallery Lift-up of Acetate-intercalated Layered Yttrium Hydroxide in Water”, 8th International Conference on Ion Exchange (ICIE2022), (2022.11.4-7, Tokyo, Japan)

[15] A. Miura, H. Ito, Y. Nakahira, Y. Goto, Y. Mizuguchi, C. Moriyoshi, N.C. Rosero-Navarro, and K. Tadanaga, “Synthesis-Structure Relationship Guided by Intermediate and Remnant Metastability”, MRS Fall Meeting, (2022.11.27-12.2, Boston)

[1] _____, $BaTiO_3$, BCDI 1 , 2022 7 9 -10 , ,

[2] _____, $BaTiO_3$, BCDI 2 , 2023 3 4 -5 , ,

[3] _____, SPring-8 AD , BCDI AD , 2023 3 20 , ,

[1] Piyush Sapkota, , Kim Sangwook, , , , Proposal of a new concept, “Chemical Grain Size” to Induce Superparaelectricity into $BaTiO_3$ System Ceramics through Heterovalent Co-doping for Wide Temperature Stable and DC-bias Free Dielectrics , 39 (FMA-39), 2022 6 1 -4 ,

[2] Kim Sangwook and Kim Wonjeong, Effect of Quenching Rate on the Crystal Structure and Electrical Properties in Bi-bsed Piezoelectric Ceramics , 39 (FMA-39), 2022 6 1 -4 ,

[3] <</5en-US , , , , , , , , , , , , , , , , , , , X 3 II , 39

, 2022 9 20 -23 , ,
[12] , , , , , _____, , ,
,
, 130 2022 9 20 -26 ,
,
[13] , , , , , , _____, ,
, , X
, 2022 130 , 2022
11 15 -17 , ,
[14] , , , , , , , ,
, , , , , , _____, X
3 , 4 (2022) , 2022
11 26 -27 , ,
[15] , , , , , , , ,
, , , , Kim Sangwook, , _____, X
500nm BaTiO3 , 61
, 2023 1 7 -8 , ,
[16] , _____, , , ,
, 61 , 2023 1 7 -8 ,
,
[17] , , Kim Sangwook, Nam Hyunwook, , , , __
_____, $BaTiO_3$, 70 , 2023 3
15 -18 , ,
[18] , Kim Sangwook, Nam Hyunwook, , , , _____, BT-
BMT-BF , 70 ,
2023 3 15 -18 , ,
[19] , , _____, BT14 ,BTcube , BCDI 2 , 2023 3
4 -5 , ,
[20] , , _____, BT , BCDI 2 , 2023 3
4 -5 , ,
[21] , , , , _____, , ,
A15 V_3(Al, Si, Ga, Ge, Sn) , 2023 ,
2023 3 22 -25 ,
[22] , , , _____, ,
, , 38 ,
,
[23] , , , , , , , ,
, _____, , , , ,
$LixCoF_3$, 25 XAFS , ,

○ 6
○ 2
○ 0

○ 12
○ 0
○ 0

○
[1] 39 FMA-39, , 2022 6 1 -4 ,
, , _____ , , ,
_____ , 187

○

○
[1] _____ ( ) DESJ
[2] _____ ( ) JPS
[3] _____ ( ) CerSJ
[4] _____, _____ FMA
[5] _____ FMA
[6] _____, _____ FMA
[7] _____ Asian Ferroelectric Association (AFA), Executive Board ,
Chair-elect.( )
[8] _____ Journal of Advanced Dielectrics (JAD), Editorial Board
[9] _____ The Dielectrics and Electrical Insulation Society of IEEE (IEEE-DEIS), Technical Committee of Functional Dielectrics
[10] _____ IUCr
[11] _____
[12] _____
[13] _____ ,
[14] Sangwook Kim Materials, Section Editor for Advanced and Functional Ceramics and Glasses
[15] Sangwook Kim Materials, Editoral Board member

○
[1] _____ 2
[2] _____

[3] _____

○

[1] _____

[2] _____

[3] _____ ,

○

[1] _____ ( ) JASRI

○

○

[1] _____ SPring-8 BL02B2 ,
2022 , , ,

[2] _____ SPring-8 BL02B2 , 2022 ,
,

○

[1] _____ 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15) (2022.8.28-31, Kofu, Hotel Danrokan, Japan), Local Committee, (
) , 81

[2] _____ 14th Japan-China Symposium on Ferroelectric Materials and Their Applications (JCFMA-14) (2022.12.8-9, Kanazawa, Kanazawa Bunka Hall, Japan), Academic Committee,
( ) , 36 , 100

[1] _____
, 1 , , 2022 10 21

[2] _____
, 1 , , 2022 10 21

○

[1] _____ 2020 4 1

○

[1] _____ B
2022 , 1,820
[2] _____ B
2022 , 715
[3] _____ X
2022 , 0
[4] _____ X
2022 , 1,500
[5] Kim Sangwook
2020-2022 , 2,000

○

[1] (M2) Poster Award, 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15) (2022.8.28-31, Kofu, Hotel Danrokan, Japan)
[2] (M1) 52 , 2022 83
2022 9 20 -23 , ,
[3] (M2) Best Poster Presentation Award, 14th Japan-China Symposium on Ferroelectric Materials and Their Applications (JCFMA-14), (2022.12.8-9, Kanazawa, Kanazawa Bunka Hall, Japan).
[4] Kim Sangwook International Association of Advanced Materials Award (IAAM Award), International Association of Advanced Materials . European Advanced Materials Congress 2022 6

X

X

SPring-8

KEK-PF

X XRD X XAS X XES

PES *in situ*

XAS

XES

X

XAS

( ) X

XES

XES

10 eV

X

X HERFD-XAFS 4

Operando-XES XES

$SrTiO_3$

$SrTiO_3$

Nature Science

$SrTiO_3$

$SrTiO_3$ X

10 nm

$SrTiO_3$

$BaTiO_3$

Acta

Materialia

X

( )

X

Badri Rao

Rao

X

Rao SPring-8 X

2

X

TiO_2

TiO_2

X

TiO_2

(

X

X X

EXAFS

X

/ X

ESRF 2 XRD/XAS

GRC

RMC XAFS

X

X

[1] S. Sawada, K. Okai, H. Fukui, R. Takahashi, N. Ishimatsu, H. Maruyama, N. Kawamura, S. Kawaguchi, N. Hirao, T. Seki, K. Takanashi, S. Ohmura, and H. Wadati, Lattice constants and magnetism of L10-ordered FePt under high pressure, Appl. Phys. Lett. 122, 152406 (2023)

[2] Fuminori Honda, Shintaro Kobayashi, Naomi Kawamura, Saori I. Kawaguchi, Takatsugu Koizumi, Yoshiki J. Sato, Yoshiya Homma, Naoki Ishimatsu, Jun Gouchi, Yoshiya Uwatoko, Hisatomo Harima, Jacques Flouquet, and Dai Aoki, Pressure-induced Structural Phase Transition and New Superconducting Phase in UTe2, J. Phys. Soc. Jpn. 92, 044702 (2023) [10 Pages] DOI: 10.7566/JPSJ.92.044702

[3] Naoki Ishimatsu, Kentaro Ishimoto, Kouji Sakaki, Yumiko Nakamura, Naomi Kawamura, Saori I. Kawaguchi, Naohisa Hirao, and Satoshi Nakano, Ferrimagnetic coupling between cobalt and light rare-earth samarium induced by dense hydrogenation of SmCo5 permanent magnet under high pressures, Phys. Rev. Materials 7, 024401 (2023).

[4] Yusuke Kubo, Naoki Ishimatsu, Naoto Kitamura, Naomi Kawamura, Sho Kakizawa, Masaichiro Mizumaki, Ryuichi Nomura, Tetsuo Irifune and Hitoshi Sumiya, Visualization of the disordered structure

of Fe-Ni Invar alloys by Reverse Monte Carlo calculations, Front. Mater. 9:954110. (2022).

458 2 , 2022

[1] Naoki Ishimatsu, “Visualization of the disordered structure of Fe-Ni Invar alloys by EXAFS and RMC Calculations” Int. WS on Exploration of Atomistic Disorder in Long-Range Ordered Systems and of Order in Disordered Materials (2022.9.19-21, Grenoble, France and Hybrid meeting)

[2] Keita Hiromori, “Comparison of photocatalytic activity of edge and terrace sites of anatase TiO2 single crystal by micro X-ray photoelectron spectroscopy” The 22nd INTERNATINAL VACUUM CONGRESS IVC-22 (2022.9.11-16, Sapporo, Japan)

[3] Keita Hiromori, “Correlation between valence-band structure and photocatalytic activity on the surface of natural anatase TiO2 crystal by micro XPS” R C INTERNATIONAL SUMMER SCHOOL 2022 (2022.8.14-21, Varberg

2023.1.7-9,
[7] , _____, , , Ba(Ti1-xSnx)O3 Sn , 35
2023.1.7-9,

[8] , _____, , , , , , , SrTiO3
, 35
2023.1.7-9,
[9] , _____, , , , Anspoks Andris, X
BaTiO3 , 35
2023.1.7-9,
[10] , _____, , , , , , ,
, EXAFS RMC Fe-Ni , 35
2023.1.7-9,
[11] , _____, , _____, , , X
Pd-Rh , 35
2023.1.7-9,
[12] , , _____, Rao Badari, , , , X
AlFeO3 , 35
2023.1.7-9,
[13] , _____, , , , , , ,
, , , , , , , X
, 35 2023.1.7-9,

[14] , , , , , _____, , A
CaCu3Ti4O12 , 35
2023.1.7-9,
[15] , _____, , , SUS304
, (A) 4 2022.10.1-2, NIMS

[16] , , , , , _____, , A
CaCu3Ti4O12 , 2022.9.12-15,

[17] , , , _____, , , YbNi3Ga9
X , 2022.9.12-15,

[18] , _____, , , , , , ,
, EXAFS Fe55Ni45 ,
25 XAFS 2022.8.2-4, ,

- 0
- 2
- 0

- 8
- 4
- 3

○

[1] _____ 15 RCBJSF 3

[2] _____

[3] _____ SPring-8

[4] _____

[5] _____ 26 XAFS

○

[1] _____ ( ) ,

[2] _____ SPring-8

[3] _____ SPring-8

[1] _____

[1] _____ 1 2

[2] _____ (ESRF) A. Rosa

[3] _____ B. Harihara Venkataraman Aurivllius

○

[1] , 2022 10 , 1

[1] _____ (B) 2021 -2023 , 4,000

Fe

[2] _____ (A)
2021 -2022 , 3,000
Fe-Fe
[3] _____ (B) 2020 -2023 , 300

[4] _____ (B) 2022 -2024 , 17,180

○

○
[1] (M2) 25 XAFS , 2022 8 3
[2] (D2) , 2023 3 15
[3] (D3) 3 , 2022 4 3

Angle- resolved photoelectron spectroscopy = ARPES

ARPES

(1) $HfP_{2-x}Se_x$

2010

2

3 ZrSiS

65%

$PbTaSe_2$

40%

$ZrP_{2-x}Se_x$

JSPS A
18H03683
S :
17H06138

(2) Fe_3Ga

1.0 μV/K 10-20 μV/K

$Fe_{0.68}Ga_{0.32}$ Fe 2 2.4 μV/K

$D0_3$ Fe_3Ga 4 μV/K

Spin-ARPES Fe-Ga
ARPES
$D0_3$ Fe_3Ga
Spin-ARPES HiSOR BL-9B VLEED
(E_F) $E - E_F = -1.2$ eV

E_F

JSPS A
18H03683
S
17H06152 S
: 17H06138

(3)

RMnSi (R=La,Ce)

P4/nmm T_N ~ 294 K

1(b)

$BaMn_2As_2$ $EuMnBi_2$

RMnSi T_N

RMnSi $q = 0$

LaMnSi CeMnSi

RMnSi (R = La, Ce)

SPring-8 BL25SU HiSOR BL-1 BL-9A X (SX)

(VUV) (ARPES)

SX-ARPES k_z

3 Γ – X

k_x-k_y T_N T 50 K Γ – X

X ARPES

Γ

p VUV ARPES CeMnSi 50 K (< T_N)

LaMnSi

Mn 3d Mn 3d

RMnSi (R=La,Ce)

$q = 0$

(4) $Co_2Cr(Ga,Si)$

Co Co_2CrGa

Co_2CrSi [X. Xu et al., Appl. Phys. Lett. **103**,

164104 2013]

$Co_2Cr(Ga,Si)$

$Co_2Cr(Ga,Si)$

X

X SPring-8 BL15XU, BL23SU

300-20K

X

20K 300K

X

Co 3*d* Cr 3*d*

[1] T. Kubota, D. Takano, Y. Kota, S. Mohanty, K. Ito, M. Matsuki, M. Hayashida, M. Sun, Y. Takeda, Y. Saitoh, S. Bedanta, A. Kimura, and K. Takanashi, “Magnetoelastic anisotropy in Heusler-type $Mn_{2-\delta}CoGa_{1+\delta}$ films”, Phys. Rev. Mater. **4** (4), 044405/ 1-12 (2022).

[2] B. Gudac, M. Kriener, Y. V. Sharlai, M. Bosnar, F. Orbanić, G. P. Mikitik, A. Kimura, I. Kokanović, and M. Novak, “Nodal-line driven anomalous susceptibility in ZrSiS”, Phys. Rev. B. / **3** (24), L241115/ 1-6 (2022).

[3] , , _____, Co
8 (3), p.117-137 (2023).

[4] De-Yang Wang, Qi Jiang, Kenta Kuroda, Kaishu Kawaguchi, Ayumi Harasawa, Koichiro Yaji, Arthur Ernst, Hao-Ji Qian, Wen-Jing Liu, He-Ming Zha, Zhi-Cheng Jiang, Ni Ma, Hong-Ping Mei, Ang Li, Takeshi Kondo, Shan Qiao, and Mao Ye, “Coexistence of Strong and Weak Topological Orders in a Quasi-One-Dimensional Material”, Phys. Rev. Lett. **129** (14), 146401/ 1-6 (2022).

[1] Akihiro Ino, Satoshi Ishizaka, Takuya Kubo, Takashi Kono, Yudai Miyai, Hitoshi Takita, Wumiti Mansuer, Shiv Kumar, Kenya Shimada, Shigenori Ueda, Hijiri Kito, Izumi Hase, Shigeyuki Ishida, Kunihiko Oka, Hiroshi Fujihisa, Yoshito Gotoh, Yoshiyuki Yoshida, Akira Iyo, Hiraku Ogino, Hiroshi Eisaki, Kenji Kawashima, Yousuke Yanagi, Akio Kimura, “Anion mixing effects on the electronic structure of a phosphorus-based Dirac nodal-line superconductor ZrP_{2-} Se ”, APS March Meeting 2023 (2023.3.9, Caesars Forum Convention Center, Las Vegas, USA).

[2] Takuma Iwata, Kousa Towa, Yukimi Nishioka, Ohwada Kiyotaka, Hideaki Iwasawa, Masashi Arita, Akio Kimura, Kenta Kuroda, Koji Miyamoto, Taichi Okuda, “Development of the laser based μ-SARPES machine at HiSOR”, APS March Meeting 2023 (2023.3.9, Caesars Forum Convention Center, Las Vegas, USA).

[3] Karen Nakanishi, Kiyotaka Ohwada, Kenta Kuroda, Kazuki Sumida, Hitoshi Sato, Koji Miyamoto,

Taichi Okuda, Shinji Isogami, Keisuke Masuda, Yuya Sakuraba, Akio Kimura, “Band structure of ferromagnetic Fe_4N thin-film revealed by spin- and angle- resolved photoelectron spectroscopy”, APS March Meeting 2023 (2023.3.9, Caesars Forum Convention Center, Las Vegas, USA).

[4] Yukimi Nishioka, Satoshi Ishizaka, Kenta Kuroda, Akihiro Ino, Shiv Kumar, Kenya Shimada, Hijiri Kito, Izumi Hase, Shigeyuki Ishida, Kunihiko Oka, Hiroshi Fujihisa, Yoshito Gotoh, Yoshiyuki Yoshida, Akira Iyo, Hiraku Ogino, Hiroshi Eisaki, Kenji Kawashima, Yousuke Yanagi, Akio Kimura, “Direct observation of Dirac nodal-line fermions in a mixed-anion superconductor HfP_{2-} Se ”, APS March Meeting 2023 (2023.3.8, Caesars Forum Convention Center, Las Vegas, USA).

[5] Jadupati Nag, Barnabha Bandyopadhyay, Bishal Das, K. G. Suresh, Aftab Alam, and Akio Kimura, “GdAlSi: A potential candidate for antiferromagnetic Weyl semimetal”, APS March Meeting 2023 (2023.3.6, Caesars Forum Convention Center, Las Vegas, USA).

[6] Kaishu Kawaguchi, Kenta Kuroda, Yuto Fukushima, Zhigang Zhao, Shuntaro Tani, Hiroaki Tanaka, Ayumi Harasawa, Takushi Imori, Ryo Noguchi, K. A. Kokh, O. E. Tereshenko, Akio Kimura, Koichiro Yaji, Shik Shin, Fumio Komori, Yohei Kobayashi, Takeshi Kondo, “Time-, spin- and angle-resolved photoemission spectroscopy of spin-polarized surface states with a 10.7-eV laser at 1-MHz repetition rate”, The 22nd International Vacuum Congress (IVC-22) (Oral, 2022.9.11-16, Sapporo, Japan).

[1] _____, ARPES
2022 2023 3
28 ,

[2] _____, , , , , , ARPES
Fe_4N 4 2023 3 3
,

[3] _____, NanoTerasu 36
2023 1 8 , ,

[1] _____,
2022 9 1 , ,

[1] Jadupati Nag, Yukimi Nishioka, Yasumasa Takagi, Akira Yasui, Aftab Alam, K. G. Suresh, Akio Kimura, “CoFeVSb: A Promising Spintronic and Thermoelectric Material” 70
, 2023 3 17 ,

[2] , , _____, , _____, _____, , ,
, _____, Fe_4N
2022 , 2022 9 15 ,

[3] , , _____, _____, _____, , , ,
, , _____, Fe_3Ga 2022
, 2022 9 14 ,
4

, 4,200 2022

[2] _____ 4 , 1,200 2022

[3] _____ (B) 2022-2024

(Pb,Sn)Te , 300 2022

[4] _____ 2022 , 8,700 2022

[5] _____ (B) 2022-2024

, 7,200 2022

[6] _____ ( ) 2022-2023

, 3,100

2022

[7] _____ (C) 2022-2024

, 1,200 2022

SAM

2022 SAM

SAM

CHC

CHC

10^{-15}

2

π SAM CHC

SAM CHC

SAM

10^{-12}

X

SAM

10nm

2

CHC

SAM 2

SAM

SAM

X XFEL X X

X

XFEL
SACLA
X

SACLA
2022 SACLA X FEL
(NIR) Xe
Xe Xe^{1+} Xe^{2+} 4d

X

SACLA X

X

native
SAM

DPPC DOPC 2 X
2

X
2

NMR -
(NA) (AA)

(CD)
α,β,γ-CD NA
AA
Bruker AVANCE700MHz NMR ^{1}H-NMR 2D-ROESY α-

CD/NA ROESY α-CD NA

2

α-CD NA

γ-CD NA2 1 CD

SACLA Oxford SLAC NRC Canada Turku Kansas

KEK PF
UVSOR

UVSOR

[1] _____, , , “XFEL X Xe
”, , / 7, 80-88 2022

[1] A. Niozu, “Ultrafast dynamics of laser induced nanoplasmas studied by FEL pump probe experiments”, LSC2022, (2022.4.20-22, Yokohama (online), Japan).

[2] A. Niozu, “Probing transient structures of nanoparticles by single particle X ray diffraction”, FEL2022, (2022.8.22-26,

[4] _____, , , _____,
, 16 2022, 2022 9 19 -22 ,
[5] S. Wada and M. Tabuse, Soft X-ray polarization analysis of lipid order for phospholipid multilayers supported on hydrophilic surfaces , 60 , 2022 9 28 -30
[6] , , _____, , , , , ,
, E. Salehi, _____,
, UVSOR 2022, 2022 11 26 -28 ,
[7] ○ _____, , , _____, _____, , ,
, UVSOR 2022, 2022 11 26 -28 ,
[8] _____, , , _____,
, 36 , 2023 1 7 -9 ,
[9] ○ _____, , , _____, _____, , ,
, 36 , 2023 1 7 -9 ,
[10] _____, , , , You Daehyun, , , , __ _____, , , , , , ,
, 36 , 2023 1 7 -9 ,
[11] Ứ ẹ ᵏ , ____ %, ,1 , ¦ ẄỈ , ᵏ , . ̂ , Ṫ , Salehi Elham, _____,
, 36 , 2023 1 7 -9 ,

- 4
- 1
- 1

-

[1] _____ 36

-

[1] _____, _____ SACLA , , , ,

-

-

-

[1] _____	C	900	
[2] _____	B	800	
[3] _____			1,560
[4] _____		2,080	

X

2022

R&D ARPES

ARPES

Bi_2Te_3

0.02-0.13

0.2

Re(0001) Tamm Shockley 2

Re(0001) 2

2

Cr_2O_3

$3d_{z2}$

(H2A-H2B) in vitro

37°C 2

H2A-H2B

SPIDER

10 10

2022

111

136 69 50.7 % 67 49.3%

27 9 4 5
2 7
4 1

KEK
KEK KEK
KEK

KEK
KEK
Σ ∩

BL-1 BL-9A % ᵏ Ã

R&D

5 5

5 HiSOR-II

2022

29 15

Flash Poster Session 1

3 3

69 41 18

18

4 3

[1] T. Mizokawa, A. Barinov, V. Kandyba, A. Giampietri, R. Matsumoto, Y. Okamoto, K. Takubo, K. Miyamoto, T. Okuda, S. Pyon, “Domain dependent Fermi arcs observed in a striped phase dichalcogenide”, Adv. Quantum Technol. **3**, 2200029 9p 2022 .

[2] M. I. A. Ibrahim, M.d S. Amer, H. A. H. Ibrahim, E. H. Zaghloul, “Considerable production of Ulvan from Ulva lactuca with special emphasis on its antimicrobial and anti-fouling properties”, / **72**, 3097–3118 2022 .

[3] S. Dan, S. Kumar, S. Dan, D. Pal, S. Patil, A. Verma, S. Saha, K. Shimada, S. Chatterjee, “Unraveling the obscure electronic transition and tuning of Fermi level in Cu substituted Bi_2Te_3 compound”, (10 , 022105 6p 2022 .

[4] S. Kusaka, T. T. Sasaki, K. Sumida, S. Ichinokura, S. Ideta, K. Tanaka, K. Hono, T. Hirahara, “Fabrication of $(Bi_2)_m(Bi_2Te_3)_n$ superk e ilmc y Te, orN ion rom Mpristine Bi

[8] A. A. M. El-Sayed, M. I. A. Ibrahim, S. Shabaka, M. M. Ghobashy, M. A. Shreadah, S. A. A. Ghani, “Microplastics contamination in commercial fish from Alexandria City, the Mediterranean Coast of Egypt”, **1/1**, 120044 2022 .

[9] A. El-Maradny, M. I. A. Ibrahim, I. M. Radwan, M. A. Fahmy, H. I. Emara, L. A. Mohamed, “Horizontal and vertical segregation of polycyclic aromatic hydrocarbons in the Egyptian Mediterranean coast”, **07**, 86707-86721 2022 .

[10] F. Kato, Y. Yamaguchi, K. Inouye, K. Matsuo, Y. Ishida, M. Inouye, “A novel gyrase inhibitor from toxin-antitoxin system expressed by Staphylococcus aureus”, 903363 13p 2022 .

[11] S. Wibowo, J. Costa, M. C. Baratto, R. Pogni, S. Widyarti, A. Sabarudin, K. Matsuo, S. B. Sumiq я ſ

“

P. Cheng, “Observation of topological flat bands in the Kagome semiconductor Nb_3Cl_8”, **00**, 4596-4602 2022 .

[22] J. Maruyama, S. Maruyama, Y. Kashiwagi, M. Watanabe, T. Shinagawa, T. Nagaoka, T. Tamai, N. Ryu, K. Matsuo, M. Ohwada, K. Chida, T. Yoshii, H. Nishihara, F. Tani, H. Uyama, “Helically aligned fused carbon hollow nanospheres with chiral discrimination ability”, / **2**, 3748–3757 2022 .

[23] B. V. Senkovskiy, A. V. Nenashev, S. K. Alavi, Y. Falke, H. M. Hell, P. Bampoulis, D. V. Rybkovskiy, D. Y. Usachov, A. V. Fedorov, A. I. Chernov, F. Gebhard, K. Meerholz, D. Hertel, M. Arita, T. Okuda, K. Miyamoto, K. Shimada, F. R. Fischer, T. Michely, S. D. Baranovskii, K. Lindfors, T. Szkopek, A. Gruneis, “Tunneling current modulation in atomically precise graphene nanoribbon heterojunctions”, / **0**, 2542 11p 2022 .

[24] H. Iwasawa, T. Ueno, T. Masui, S. Tajima, “Unsupervised clustering for identifying spatial inhomogeneity on local electronic structures”, **5**, 24 10p 2022 .

[25] H. Sato, T. Matsumoto, N. Kawamura, K. Maeda, T. Takabatake, A. M. Strydom, “Valence transition of the intermetallic compound Ce_2Rh_2Ga probed by resonant x-ray emission spectroscopy”, / **3**, 035113 7p 2022 .

[26] S. Sharma, S. Kumar, G. C. Tewari, G. Sharma, E. F. Schwier, K. Shimada, A. Taraphder, C. S. Yadav, “Magnetotransport and high-resolution angle-resolved photoelectron spectroscopy studies of palladium-doped Bi_2Te_3”, / **3**, 115120 9p 2022 .

[27] H. Tanaka, S. Okazaki, K. Kuroda, R. Noguchi, Y. Arai, S. Minami, S. Ideta, K. Tanaka, D.-H. Lu, M. Hashimoto, V. Kandyba, M. Cattelan, A. Barinov, T. Muro, T. Sasagawa, T. Kondo, “Large anomalous Hall effect induced by weak ferromagnetism in the noncentrosymmetric antiferromagnet $CoNb_3S_6$”, / **3**, L121102 2022 .

[28] S. Ishizaka, A. Ino, T. Kono, Y. Miyai, S. Kumar, K. Shimada, H. Kitô, I. Hase, S. Ishida, K. Oka, H. Fujihisa, Y. Gotoh, Y. Yoshida, A. Iyo, H. Ogino, H. Eisaki, K. Kawashima, Y. Yanagi, A. Kimura, “Evidence for Dirac nodal-line fermions in a phosphorous square-net superconductor”, / **3**, L121103 6p 2022 .

[29] D. A. Estyunin, E. F. Schwier, S. Kumar, K. Shimada, K. Kokh, O. E. Tereshchenko, A. M. Shikin, “Features and applications of the energy shift of the topological surface state”, / **3**, 125303 11p 2022 .

[30] A. Ino, T. Kubo, S. Ishizaka, H. Takita, W. Mansuer, K. Shimada, S. Ueda, H. Kitô, I. Hase, S. Ishida, K. Oka, H. Fujihisa, Y. Gotoh, Y. Yoshida, A. Iyo, H. Ogino, H. Eisaki, K. Kawashima, Y. Yanagi, “Direct observation of the electronic structure of the layered phosphide superconductor ZrP_{2-} Se ”, / **3**, 195111 8p 2022 .

[31] Z. H. Tin, T. Adachi, A. Takemori, K. Yoshino, N. Katayama, S. Miyasaka, S. Ideta, K. Tanaka, S. Tajima, “Observation of bands with dxy orbital character near the Fermi level in $NdFeAs_{1-}$ P $O_{0.9}F0.1$ using angle-resolved photoemission spectroscopy”, / **3**, 205106 10p 2022 .

[32] S. Ichinokura, M. Toyoda, M. Hashizume, K. Horii, S. Kusaka, S. Ideta, K. Tanaka, R. Shimizu, T. Hitosugi, S. Saito, “Van Hove singularity and Lifshitz transition in thickness-controlled Li-intercalated graphene”, / **3**, 235307 6p 2022 .

[33] M. Holtmann, P. Krüger, K. Miyamoto, T. Okuda, P. J. Grenz, S. Kumar, K. Shimada, M. Donath, “Distinct Tamm and Shockley surface states on Re(0001) mixed by spin-orbit interaction”, / **3**, L241412 6p 2022 .

[34] A. P. Sakhya, S. Kumar, A. Pramanik, R. P. Pandeya, R. Verma, B. Singh, S. Datta, S. Sasmal, R. Mondal, E. F. Schwier, K. Shimada, A. Thamizhavel, K. Maiti, “Behavior of gapped and ungapped Dirac cones in the antiferromagnetic topological metal SmBi”, / **4**, 085132 6p 2022 .

[35] S.-L. Wu, K. Yaji, Y. Ota, A. Harasawa, S. Shin, T. Imai, K. Miyamoto, M. Nagao, S. Watauchi, I. Tanaka, X. Ma, H. Yang, Y. Cai, L. Zhao, X. Zhou, T. Okuda, “Systematic study of electronic states of Ln(O,F)BiS_2 by spin- and angle-resolved photoemission spectroscopy”, / **4**, 104511 9p 2022 .

[36] A. Kumar, S. Kumar, Y. Miyai, K. Shimada, “Temperature-dependent band modification and energy dependence of the electron-phonon interaction in the topological surface state on Bi_2Te_3”, / **4**, L121104 8p 2022 . ¸ ½5

[37] H. Sato, T. Matsumoto, K. Maeda, Y. Taguchi, N. Kawamura, H. Ishibashi, “Metal-insulator transition in $CuIr_2S_4$ observed by Cu resonant x-ray emission spectroscopy”, / **4**, 155151 8p 2022 .

[38] T. Kaneyasu, M. Hosaka, A. Mano, Y. Takashima, M. Fujimoto, E. Salehi, H. Iwayama, Y. Hikosaka, M. Katoh, “Double-pulsed wave packets in spontaneous radiation from a tandem undulator”, /**0**, 9682 10p 2022 .

[39] S. A. A. Ghani, A. A. M. El-Sayed, M. I. A. Ibrahim, M. M. Ghobashy, M. A. Shreadah, S. Shabaka, “Characterization and distribution of plastic particles along Alexandria beaches, Mediterranean Coast of Egypt, using microscopy and thermal analysis techniques”, **612**, 155363 10p 2022 .

[40] S. Shabaka, M. N. Moawad, M. I. A. Ibrahim, A. A. M. El-Sayed, M. M. Ghobashy, A. Z. Hamouda, M. A. El

using synchrotron CD spectroscopy", 18th International Conference on Chiroptical Spectroscopy CD2022 NewYork, USA, 2022.7.24-27

[4] K. Shimada, "Synchrotron radiation, a dream light, shining electrons in solids", University of Nebraska–Lincoln, EQUATE Colloquium 2022.9.22 online

[5] R. Tsuji, M. Kumashiro, K. Matsuo, "Contributions of membrane phase Transitions to membrane-bound conformations of magainin2", Molecular Chirality ASIA 2022 Shanhai, China, 2022.10.31 online

[6] R. Imaura, Y. Kawata, K. Matsuo, "Membrane-bound conformation of α-synuclein characterized by vacuum-ultraviolet circular dichroism, linear dichroism, and molecular dynamics simulation", Molecular Chirality ASIA 2022 Shanhai, China, 2022.10.31 online

[7] K. Fujii, K. Matsuo, "VUV-CD measurements of liquid-liquid phase separation", Molecular Chirality ASIA 2022 Shanhai, China, 2022.10.31 online

[8] M. Katoh, "Design of HiSOR-II", The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[9] H. Rong, Z. Huang, X. Zhang, S. Kumar, F. Zhang, C. Zhang, Y. Wang, Z. Hao, Y. Cai, L. Wang, C. Liu, X. Ma, S. Guo, B. Shen, Y. Liu, S. Cui, K. Shimada, Q. Wu, J. Lin, Y. Yao, Z. Wang, H. Xu, C. Chen, "Realization of practical eightfold fermions and fourfold van Hove singularity in $TaCo_2Te_2$", The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[10] Y. Miyai, T. Kurosawa, M. Oda, M. Arita, S. Ideta, K. Shimada, "Symmetry reduction in the electronic structure of heavily overdoped PbBi2201 detected by ARPES", The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[11] S. Ideta, S. Kumar, Y. Miyai, Y. Kumar, A. Kumar, M. Arita, H. Iwasawa, K. Shimada, "Recent upgrades and activities of HiSOR BL-1", The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[12] Y. Tsubota, Y. Miyai, S. Kumar, K. Tanaka, S. Ishida, H. Eisaki, S. Nakagawa, T. Kashiwagi, M. Arita, K. Shimada, S. Ideta, "Re-examination of the phase diagram of the high-Tc cuprate superconductor $Bi_2Sr_2CaCu_2O_{8+\delta}$ studied by ARPES", The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[13] Y. Kumar, S. Kumar, K. Shimada, "Exploration of novel topological semimetal and evolution of the electronic structure using high-resolution ARPES", The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[14] K. Ishiba, Y. Miyai, S. Kumar, T. Kurosawa, M. Oda, S. Ideta, K. Shimada, "Development of ARPES analysis method using Bayesian Inference and application to cuprates", The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[15] Y. Onishi, Y. Miyai, Y. Tsubota, S. Kumar, M. Atira, H. Eisaki, S. Ishida, K. Shimda, S. Ideta, "Momentum dependence of the spectral weight in the single layer high-Tc cuprate $Bi_2Sr_2CuO_{6+\delta}$ studied by ARPES", The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[16] Y. Muraoka, T. Kanayama, S. Enomoto, T. Wakita, M. Sawada, "Characterization of amorphous carbon films by X-ray magnetic circular dichroism", The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[17] Y. Higuchi, R. Itaya, M. Tomita, H. Saito, K. Suzuki, H. Sato, K. Sato, K. Sakamoto, "Investigating the possibility of creating a "pure" p-type Bi_2Se_3", The 27th Hiroshima International Symposium on

Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[18] Y. Tanimoto, M. Sugimoto, R. Kamimori, H. Sato, M. Arita, S. Kumar, K. Shimada, S. Nakamura, S. Ohara, “Observation of electron structure of chiral magnet $Yb(Ni_{1-}Cu)_3Al_9$ by ARPES”, The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[19] C. Zhang, K. Miyamoto, T. Shishidou, R. Amano, T. Sayo, C. Shimada, Y. Kousaka, M. Weinert, Y. Togawa, T. Okuda, “Spiral band structure hidden in the bulk chiral crystal $NbSi_2$”, The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[20] K. Kunitomo, K. Miyamoto, T. Okuda, “Investigation of perpendicular anisotropy in FeCo alloy films covered with oxygen for development of multi spin detecting target”, The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[21] C. Sugahara, K. Matsuo, K. Okada, “Hydration structure of acetone studied with concentration-dependent absorption spectra in the ultraviolet region”, The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[22] S. Hashimoto, K. Matsuo, “Dynamic observation of interaction process between b-lactoglobulin and membrane by time-resolved vacuum-ultraviolet circular dichroism”, The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[23] J. Takahashi, M. Kobayashi, G. Fujimori, K. Kobayashi, H. Ota, K. Matsuo, M. Katoh, Y. Kebukawa, S. Yoshimura, H. Nakamura, “Optical activity measurement of aino-acid films irradiated with circularly polarized lyman-a light”, The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[24] R. Tsuji, M. Kumashiro, K. Matsuo, “Interaction mechanism between the antimicrobial peptide mgainin2 and lipid membrane revealed by synchrotron-radiation circular- and linear dichroism apectroscopy”, The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[25] R. Imaura, K. Matsuo, “Membrane-bound conformation of the non-amyloid-b component of a synuclein characterized by vacuum-ultraviolet circular dichroism and molecular-dynamics simulation”, The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[26] W. Nishizawa, M. Sawada, “Magnetic properties of Co ultrathin films intercalated underneath monolayer h-BN grown on Ni(111) probed by soft X-ray magnetic circular dichroism”, The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[27] Y. Lu, M. Shimada, H. Miyauchi, M. Katoh, “Design Study on HiSOR-II”, The 27th Hiroshima International Symposium on Synchrotron Radiation Higashi-Hiroshima, Japan, 2023.3.9-10

[1] , , , _____, α
22 , 2022 6 7 -
9

[2] , _____, β -
22 , 2022 6 7 -9

[3] , , _____, , Shiv Kumar, _____, , , , , , , , , , , , , , , , , _____, $HfP_{2-x}Se_x$ 2022 , 2022 9 12 -15

[4] , Shiv Kumar, , , , , , , , _____, _____, $Bi_2Sr_2CaCu_2O_{2+\delta}$ 2022 , 2022 9 12 -15

[5] , , Shiv Kumar, , , _____, _____, 2022 , 2022 9 12 -15

[6] , Shiv Kumar, , , _____, _____, Bi2201 2022 , 2022 9 12 -15

[7] , , _____, , Shiv Kumar, _____, , , $YbInCu_4$ c-f 2022 , 2022 9 12 -15

[8] , , Shiv Kumar, _____, _____, , , , VUV-ARPES CrO_2 2022 , 2022 9 12 -15

[9] , , _____, _____, _____, , , , , , _____, Fe_3Ga 2022 , 2022 9 12 -15

[10] , , , , , _____, _____, _____, _____, HiSOR 2022 , 2022 9 12 -15

[11] _____, , Chen Zhang, , , , M. Weinert, , , _____, $NbSi_2$ 2022 , 2022 9 12 -15

[12] , , _____, , _____, _____, , , , _____, Fe_4N 2022 , 2022 9 12 -15

[13] , , , , , , E. Salehi, , _____, 2022 , 2022 9 12 -15

[14] , , , , , , _____, , , , , , , X $EuBe_{13}$ Eu^{3+} 4f 2022 , 2022 9 12 -15

[15] , , , _____, , , , , , , , , X $Eu_2Pt_6Al_{15}$ 2022 , 2022 9 12 -15

[16] , , , _____, , , , , TPP[FePc(CN)$_2$]$_2$ 2022 , 2022 9 12 -15

[17] _____, , Chen Zhang, , , , M. Weinert, , , _____, $NbSi_2$ 2022 , 2022 9 12 -15

[18] Ryoga Tsuji, Munehiro Kumashiro, Koichi Matsuo, Contributions of membrane phase transitions to interaction of Magainin 2 with membrane The 60th Annual Meeting of the Biophysical Society of Japan Hakodate, 2022 9 28 -30

[19] _____, , , , , UVSOR-III 19 , 2022 10 18 -21

[20] , _____, , , , ERL 19 , 2022 10 18 -21

[21] , , , , , , , _____, , , , , , 19 , 2022 10 18 -21

[22] , , , , _____, , UVSOR PLC 19 , 2022 10 18 -21

[23] , , , _____, , , , , , 19 , 2022 10 18 -21

[24] , , , , , , _____, UVSOR-FEL Intra-cavity Compton Scattering 19 , 2022 10 18 -21

[25] Elham Salehi, Yoshitaka Taira, Masaki Fujimoto, Masahiro Katoh, Lattice design for future plan of UVSOR 19 , 2022 10 18 -21

[26] , , , , , , , _____, UVSOR 2022 19 , 2022 10 18 -21

[27] , , , , , , , , , _____, , SR 19 , 2022 10 18 -21

[28] _____, Lu Yao, , , , 19 , 2022 10 18 -21

[29] , , , _____, 36 , 2023 1 7 -9

[30] , , , , , , _____, , , 36 , 2023 1 7 -9

[31] , , , _____, , Shiv Kumar, _____, , , Yb(Ni$_{1-x}$Cu$_x$)$_3$Al$_9$ 36 , 2023 1 7 -9

[32] Lu Yao, , , _____, HiSOR 2023 36 , 2023 1 7 -9

[33] , , , _____, 36 , 2023 1 7 -9

[34] Amit Kumar, Shiv Kumar, Yudai Miyai, Kenya Shimada, Role of the electron-phonon interaction in the topological surface states on topological insulators 36 , 2023 1 7 -9

[35] , Shiv Kumar, Kenya Shimada, Masahiro Sawada, Mid-gap states emerging in the O-terminated interface of Cr_2O_3/graphene 36 , 2023 1 7 -9

[36] , _____, , , , , , M. Weinert, , _____, Spiral electronicstructureofchiralcrystal $NbSi_2$ 36 , 2023 1 7 -9

[37] _____, , , , , , André M. Strydom, Ce Ce_2Rh_2Ga X 36 , 2023 1 7 -9

[38] , , , , , , , , _____, , , , , , X $EuBe_{13}$ Eu^{3+} 4f 36 , 2023 1 7 -9

[39] , , , _____, , , , , , , , X $Eu_2Pt_6Al_{15}$ 36 , 2023 1 7 -9

[40] ,Telegin Andrei V., Sukhorukov Yurii P., Golyashov Vladimir A., Tereshchenko Oleg E., Lavrov Alexander N., , , , Lippmaa Mikk, , , _____, , , _____, SX-ARPES $HgCr_2Se_4$ 36 , 2023 1 7 -9

[41] , _____, β 36 , 2023 1 7 -9

[42] , _____, h-BN/Ni(111) 36 , 2023 1 7 -9

[43] Takashi Komesu, Shiv Kumar, Amit Jadaun, Yuudai Miyai, Kenya Shimada, Ch. Binek, Peter A. Dowben, The spin polarization of palladium on magneto-electric Cr_2O_a 2023 , 2023 3 22 -25

[44] , , _____, _____, , ARPES
Sb/Bi/Si(111) 2023 ,
2023 3 22 -25

[45] , , , , , _____, _____, ,
α 2023
, 2023 3 22 -25

[46] , , , _____, , , X
X 2023
, 2023 3 22 -25

[47] S. Ideta, K. Tanaka, T. Yoshida, A. Fujimori, S. Adachi, N. Sasaki, S. Yamaguchi, T. Watanabe, T. Noji, T. Fujii, S. Uchida, S. Ishida, W. O. Wang, B. Moritz, T. P. Devereaux, T. K. Lee, C. Y. Mou,
Bi2223 10
, 2023 03 21

- 8
- 3
- 4

- 4
- 5
- 3

[1] The 27th Hiroshima International Symposium on Synchrotron Radiation 2023 3 9
-10 , 69

3
6

[1] ( ), 7 2022 4 8
[2] , 2 2022 5 11
[3] , 47 2022 7 5
[4] , 60 2022 7 12
[5] , 18 2022 7 19
[6] , 3 2022 8 1
[7] , 48 2022 8 18

[8] , 2 2022 8 29
[9] , 3 2022 8 30
[10] Philipps University of Marburg, 2 2022 9 10
[11] , 8 4 2022 9 11
[12] HIRAKU-Global , 12 2022 9 30
[13] WIRMS2022, 15 2022 10 9
[14] , 4 2022 10 12
[15] 3 , 31 2022 10 21
[16] , 11 2022 10 24
[17] 9 , 17 2022 11 2
[18] 4 ( ) , 69 2022 11 5
[19] , 60 2022 11 12
[20] , 10 2022 11 16
[21] 3 , 55 2022 11 17
[22] National Synchrotron Radiation Research Center, Taiwan, 2 2022 11 26
[23] , 17 2022 11 26
[24] , 1 2022 12 8
[25] , 9 2022 12 21

[1] , 24 2022 5 26
[2] , 22 2022 5 26
[3] , 21 2022 5 31
[4] , 1 2022 6 10
[5] , 1 2022 6 14
[6] , 12 2022 7 5
[7] , 12 2022 7 15
[8] , 22 2022 7 19
[9] , 12 2022 7 28
[10] , 21 2022 11 22
[11] , 3 2022 11 24
[12] , 2 2022 12 1
[13] , 12 2023 1 1915 2022,

[4] _____
[5] _____
[6] _____
[7] _____
[8] _____
[9] _____
[10] _____ Member of editorial board in “Biomedical Spectroscopy and Imaging - IOS Press”
[11] _____ Member of international advisory board in “International Conference on Chiroptical Spectroscopy”
[12] _____
[13] _____
[14] _____
[15] _____
[16] _____ Jr.
[17] _____
[18] _____

[1] _____ SPring-8
[2] _____

[3] _____
[4] _____ SPring-8 / SACLA
[5] _____

[6] _____
[7] _____ UVSOR
[8] _____ UVSOR
[9] _____ VSX
[10] _____
[11] _____
[12] _____
[13] _____

[14] _____ （JAEA） / （QST）

[1] _____
[2] _____ VG
[3] _____

[1]
[2]
[3]
[4]
[5]
[6]
[7]

[1] Band structure engineering of some magnetic topological semimetals Jayita Nayak

[2] The electronic structure investigation of dimensionality driven iridates Takashi Komesu

[3] Magnons in ultrathin Ni films Markus Donath

[4] Investigation of the spin texture in epitaxially grown Te-based thin film quantum materials Friedrich Reinert

[5] Mapping the temperature dependence of the magnetic gap in a ferromagnetically extended topological insulator: high-resolution ARPES at low temperatures and low photon energies Friedrich Reinert

[6] Study of Fermi surface topology on CoP-Based $ThCr_2Si_2$ structural compounds ACo_2P_2 (A = Ca, Sr, La, Ce, Pr, Nd, Eu) Chang Liu

[7] Spin-resolved ARPES study on magnetic topological insulator $Mn(Bi_{1-} Sb)_2Te_4$ Chang Liu

[8] Co-modulation of Dirac point and gap size in magnetic topological insulators $Sn Mn_{1-} Sb_yBi_{1-})_2Te_4$ Chang Liu

[9] ARPES study on antiferromagnetic topological semimetal Tb_2CuGe_6 Cai Liu

[10] Laser-based angle-resolved photoemission spectroscopy study on $MnBi_{10}Te_{16}$ Cai Liu

[11] ARPES Study of a low dimensional chiral Dirac material Ke Deng

[12] ARPES Study on Antiferromagnetic topological semimetal SmAlSi Chaoyu Chen

[13] High resolution ARPES study on Si-terminated and Gd-terminated surfaces of $GdIr_2Si_2$ Chaoyu Chen

[14] Investigating the electronic structure and CDW gap structure of $Cs(V_{1-} Ti)_3Sb_5$ by ARPES Chaoyu Chen

[15] Spin-resolved ARPES study on antiferromagnetic topological material CeBi Chaoyu Chen

[16] Revealing the electronic structure of a metallic magnetic van der Waas compound Ke Deng

[17] The electronic structure study on an air-stable, high mobility van der Waals material $TaCo_2Te_2$ by ARPES Fayuan Zhang

[18] The electronic structure study on MnBi12Te19 by laser-based angle-resolved photoemission spectroscopy Fayuan Zhang

[19] ARPES study on antiferromagnetic topological semimetal Sm_2CuGe_6 Yognqing Cai

[20] A study on the nature of exotic Fermi arc state and magnetic topological states in Rare-earth Monopnictides RX (R = Ce, Nd; X = Sb, Bi) by using spin-resolved ARPES Guodong Liu

[21] ARPES study on Co-based magnetic Heusler compound Co_2TX T=transition metals X=Si,Ge,Sn,Al and Ga Hongtao Rong

[22] Electronic structure study on Mn-doped $(Ge_{1-}$ Mn $)Sb_2Te_4$ Hongtao Rong

[23] ARPES study on a novel surface state in obstructed atomic insulators Chang Liu

[24] Probing the spin structure of antiferromagnetic-induced fermi-arc-like split bands in NdBi Chang Liu

[25] Uncovering nonsymmorphic symmetry protected hidden spin polarization in inversion-symmetric multiphase superconductor $Ce(RhAs)_2$ Zhang Ke

[26] Observation of fully spin-polarized Weyl monoloop surface states in rutile-type metal fluorides LiV_2F_6 Zhang Ke

[27] Far UV-CD spectroscopy of protein-nanomaterials interaction Martin Andersson

[28] ARPES Study on intrinsic magnetic topological insulator CVT-$MnBi_2Te_4$ Chaoyu Chen

[1] _____ (C)
4,290 2022 1,430

[2] _____ (A)
45,890 2022 4,810

[3] _____ (A)
42,640 2022 13,260

[4] _____ ( )
6,240 2022 1,820

[5] _____ (C)
4,160 2022 1,820

[6] _____ 4 JSPS 158

[7] _____ VG VLEED 3,245

[8] _____
474

[9] _____
500

2017

-
-
-

28

20

11 6 1

2 3

2022 4

Mao Junjie Kim Sangwook

Munisai Nuermaimaiti

Shiv Kumar Mohamed Ibrahim

Singh Avinash Gangopadhyay Anjasha

Sitaram Ramakrishnan

Liptak Zachary John

70

TA

TA TA

TA

(1)

(2)

(3)

1

4

2022		
1		
	A	
	A	
	A	
2		
	C	
		Liptak Gangopadhyay Singh
	Python	

2022		
1		
	B	
	B	
2		
	D	
	I	
3		

4

16 17

3

26

3 4

100

3

2022

AO	10	14	5
	36	71	44
	20	137	17
	66	222	66

2022	
2021	
2020	
2019	
2018	
2017	

2 1 30

2022 3 3

1 1

4 7

5

2022	66	5	67	56
2021	62	5	62	54
2020	74	5	71	47
2019	57	5	58	43
2018	64	5	65	46
2017	63	7	64	48

2022 2023 2 15 3

E104 E203

2022

2023 2 15 E104

E203

1

2

3

4

5 E×B

6

7 μ

8 Constraints on mass-dependent intrinsic scatter in scaling relations

9

Bi_2Te_3

10

11 $SrNi_2P_2$ P_2

12

13 ARPES

14 h-BN/Ni(111) Cr Mn

15

16

17

18 $YbCu_4Ni$

19 Dy_2Fe_{17} Ho_2Fe_{17}

20 XRISM

21

41 $Fe_{72}Pt_{28}$

42 μeV

43

44 $NdPt_6Al_3$

45 CsKSb
GaAs NEA
46 Yb Ge(= Ni, Ir)

47

48 CeTe
49 $DyNi_3Al_9$ Shastry-Sutherland
ErB_4

50 X

51

52
53 GRB Liptak

54
55 A review of chiral phase transition in the 1+1 dimensional Gross-Neveu model
56 Yb $YbCuS_2$
Lu, Se
57

58

59 Haldane
60 SN2021ukt

61 Ni-Ag

62 Gad 7

63

64

65 Kim

66

42 4 3

2 2 1 1

1

1 1 1

1 1

1 1

1 1

1 1

2