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10th International Conference on Aperiodic Crystals
Aperiodic 2022

Program for Oral Presentation

Date: June 20 - 24, 2022
Style: Hybrid format (in-person and online via Zoom)
Invited lectures: 40 min (30 min + 10 min)
Contributed lectures: 20min (15 min + 5 min)
Online posters: (5 min short presentations + Zoom breakout rooms)

【Monday, June 20, 2022】

Registration 10:00 – 12:00

Lunch 12:00 – 13:00

Opening 13:00 – 13:20

Hiroyuki Takakura

Session 1-1 Chair: Kaoru Kimura

O1-1-01 ▸Invited 13:20 – 14:00

Using machine learning to discover quasicrystals

Ryo Yoshida[1,2,3]

[1]Inst. Stat. Math. (Japan), [2]SOKENDAI (Japan), [3]NIMS (Japan)

O1-1-02 14:00 – 14:20

Investigation of the Eu included in the RE-Cd quasicrystals and its approximants

Yu-Chin Huang[1], Fernand Denoel[2], Roland Mathieu[2], Cesar Pay Gomez[1]

[1]Dep. of Chem. Ångström Lab., Uppsala Univ. (Sweden), [2]Dep. of Mater. Sci. Eng. Ångström Lab., Uppsala Univ. (Sweden)

O1-1-03 14:20 – 14:40

Synthesis of dodecagonal Ta-Te van der Waals layered quasicrystal

Kotaro Hamano, S. Nakagawa, Y. Kamimura, Y. Tokumoto, K. Edagawa

IIS, Univ. of Tokyo (Japan)

Break 14:40 – 15:00

Session 1-2 Chair: Olivier Perez

O1-2-01 ▸Invited 15:00 – 15:40

Jana2020 - a graphics-driven tool for analysis of standard, modulated and magnetic structures

Margarida S. Henriques, V. Petříček, M. Dušek

FZU, Czech Acad. of Sci. (Czech)

O1-2-02 15:40 – 16:00

An overview of symmetry breakings within crystallographic superspaces considering aperiodic composite crystals

Bertrand Toudic[1], P. Rabiller[1], L. Guérin[1], C. Mariette[1,2]

[1]Inst. Phys., Univ. Rennes (France), [2]ESRF (France)

Break 16:00 – 16:20

Session 1-3 Chair: Marc de Boissieu

O1-3-01 16:20 – 16:40

Phason-induced phase transformation in a decagonal Al-Cu-Rh quasicrystal

Radoslaw Strzalka, I. Buganski, J. Wolny

AGH Univ. Sci. and Tech. (Poland)

O1-3-02 16:40 – 17:00

Resonant „forbidden" reflections in aperiodic crystals

Guillaume Beutier[1], M. de Boissieu[1], G. De Laitre[1], G. Chahine[1], N. Blanc[2], S. P. Collins[3], G. Nisbet[3], S. Rohith Kotla[4], S. Van Smaalen[4], P. Gille[5], E. N. Ovchinnikova[6], V. E. Dmitrienko[7]

[1]SIMaP, CNRS, Univ. Grenoble Alpes, / Grenoble INP (France), [2]Inst. Neel (France), [3]Diamond Light Source (UK), [4]Univ. Bayreuth (Germany), [5]Univ. Munchen (Germany), [6]Moscow State Univ. (Russia),[7]Shubnikov Inst. of Crystallogr. (Russia)

O1-3-03 17:00 – 17:20

Bergamn clusters for CdYb icosahedral quasicrystal? The real space modelling with rhombohedral units

Irenuesz Buganski, R. Strzalka, J. Wolny

AGH Univ. Sci. and Tech. (Poland)

O1-3-04 17:20 – 17:40

A six-dimensional structure model of F-type Al-based icosahedral quasicrystals

Tsunetomo Yamada[1], H. Takakura[2], A. Yamamoto[3]

[1]Tokyo Univ. of Sci. (Japan), [2]Hokkadio Univ. (Japan), [3]NIMS (Japan)

Break / Photo 17:40 – 18:00

Session 1-4 Chair: Yoshiki Takagiwa

O1-4-01 18:00 – 18:20

Ferromagnetic transition in the Au-Ga-(Gd,Tb) icosahedral quasicrystals

Ryuji Tamura[1], A, Ishikawa[2], S. Suzuki[1], M. Avdeev[3], T. J. Sato[4]

[1]Tokyo Univ. of Sci. (Japan), [2]Res. Inst. for Sci. and Tech., Tokyo Univ. of Sci. (Japan), [3]Australian Nucl. Sci. and Tech. Org., Univ. Sydney (Australia), [4]IMRAM, Tohoku Univ. (Japan)

O1-4-02 18:20 – 18:40

Atomic structures of Ga-Pd-Tb 1/1 and 2/1 approximant crystals; Possible correlation between structure and magnetic behavior

Farid Labib[1], H. Takakura[2], A. Ishikawa[3], R. Tamura[1]

[1]Tokyo Univ. of Sci. (Japan), [2]Hokkadio Univ. (Japan), [3]Res. Inst. of Sci. and Tech., Tokyo Univ. of Sci. (Japan)

O1-4-03 18:40 – 19:00

Magnetism of new Eu-based quasicrystal approximants

Shintaro Suzuki[1], Y. Shimozaki[1], A. Ishikawa[2], T. Fujii[3], R. Tamura[1]

[1]Tokyo Univ. of Sci. (Japan), [2]Res. Inst. for Sci. and Tech., Tokyo Univ. of Sci. (Japan), [3]Cryogenic Res. Center, Univ. of Tokyo (Japan)

Dinner 19:00 – 20:30

Online Poster Session 1 Chair: Hiroyuki Takakura

5 min short presentations + Zoom breakout rooms 20:30 – 23:00

See the program for Online Poster Presentation

(End of the 1st day)

【Tuesday, June 21, 2022】

Free discussion 10:00 – 12:00

Lunch 12:00 – 13:00

Session 2-1 Chair: Keiichi Edagawa

O2-1-01 ▸Invited 13:00 – 13:40

Decoding complex hard-matter crystals with simple soft-matter self-assembly simulations

Julia Dshemuchadse

Cornell Univ. (USA)

O2-1-02 13:40 – 14:00

Self-assembly of nanoparticles: from periodic superlattices to quasicrystalline phases

Chiara Moretti[1], C. Goldmann[2], M. Impéror-Clerc[2], B. Abécassis[1]

[1]ENS de Lyon (France), [2]CNRS, Univ. Paris-Saclay (France)

O2-1-03 14:00 – 14:20

Simulation of self-assembly of a two-dimensional dodecagonal quasicrystal using patchy particles

Uyen T. Lieu[1], N. Yoshinaga[1,2]

[1]MathAM-OIL, AIST (Japan), [2]Tohoku Univ. (Japan)

Break 14:20 – 14:40

Session 2-2 Chair: Nayuta Takemori

O2-2-01 ▸Invited 14:40 – 15:20

Anderson localization of electron states in Al-Pd-Re quasicrystal

Shuvam Sarkar

UGC-DAE Consortium for Sci. Res. (India)

O2-2-02 15:20 – 15:40

Multimagnon-mediated Raman scattering in two-dimensional quasiperiodic Heisenberg antiferromagnets

Shoji Yamamoto, J. Ohara

Hokkaido Univ. (Japan)

O2-2-03 15:40 – 16:00

Formation of new quasicrystals and their quantum states

Junmo Jeon, SungBin Lee

KAIST (Korea)

Break 16:00 – 16:20

Session 2-3 Chair: Kazuhiko Deguchi

O2-3-01 16:20 – 16:40

Momentum-space analysis of topological superconductivity in two-dimensional quasiperiodic systems

Masahiro Hori[1,2], R. Ghadimi[3], T. Sugimoto[1], T. Tohyama[1], K. Tanaka[2]

[1]Tokyo Univ. of Sci. (Japan), [2]Univ. of Saskatchewan (Canada), [3]IBS (Korea)

O2-3-02 16:40 – 17:00

Supercurrent Distribution on Ammann-Beenker Structure

Takumi Fukushima[1], N. Takemori[2], S. Sakai[3], M. Ichioka[1,4], A. Jagannathan[5]

[1]Okayama Univ. (Japan), [2]QIQB, Osaka Univ. (Japan), [3]RIKEN (Japan), [4]RIIS, Okayama Univ. (Japan), [5]Univ. Paris-Saclay (France)

O2-3-03 17:00 – 17:20

Various magnetic phases in Tsai-type quasicrystal approximants

Takanori Sugimoto[1], S. Nakana[1], S. Suzuki[2], R. Tamura[2], T. Yamada[1], T. Tohyama[1]

[1]Dep. of Appl. Phys., Tokyo Univ. of Sci. (Japan), [2]Dep. of Mater. Sci. and Tech., Tokyo Univ. of Sci. (Japan)

Break 17:20 – 17:40

Session 2-4 Chair: Janusz Wolny

O2-4-01 ▸Invited 17:40 – 18:20

Equivalence between pure point diffractive sets and cut-and-project sets on substitution tilings

Jeong-Yup Lee

Catholic Kwandong Univ. (Korea)

O2-4-02 18:20 – 18:40

Self-similarity of the doubled Ammann-Kramer-Neri tiling

Nobuhisa Fujita

IMRAM, Tohoku Univ. (Japan)

O2-4-03 18:40 – 19:00

A Substitution Tiling with 11−Fold Dihedral Symmetry and without Finite Local Complexity

April Lynne Say-awen, M.L.A.N. De Las Peñas

Ateneo de Manila Univ. (Philippines)

Dinner 19:00 – 20:30

Online Poster Session 2 Chair: Hiroyuki Takakura

5 min short presentations + Zoom breakout rooms 20:30 – 23:00

See the program for Online Poster Presentation

(End of the 2nd day)

【Wednesday, June 22, 2022】

Free discussion 10:00 – 12:00

Lunch 12:00 – 13:00

Session 3-1 Chair: Tomonari Dotera

O3-1-01 ▸Invited 13:00 – 13:40

Investigating the topology of quasicrystals through fluctuations in the charge density

Gautam Rai[1,2], H. Schlömer[1,3], C. Matsumura[1], S. Haas[1], A. Jagannathan[4]

[1]Univ. Southern California (USA), [2]I. Inst. für Theor. Phys., Univ. Hamburg (Germany), [3]Dep. of Phys., ASC (Germany), [4]Univ. Paris-Saclay (France)

O3-1-02 13:40 – 14:00

Hyperuniform charge distributions in quasiperiodic electron systems

Shiro Sakai

RIKEN (Japan)

Break 14:00 – 14:20

Session 3-2 Chair: Ronan McGrath

O3-2-01 ▸Invited 14:20 – 15:00

Is Sn an elemental quasicrystal?

Vipin Kumar Singh

UGC-DAE Consortium for Sci. Res. (India)

O3-2-02 15:00 – 15:20

Oxide quasicrystalline approximants investigated by Density Functional Theory

Thiago Trevizam Dorini[1,3], F. Brix[1,3], A. Kokalj[2,3], É.Gaudry[1,3]

[1]Univ. Lorraine, CNRS, IJL (France), [2]Jožef Stefan Inst. (Slovenia), [3]LIA PACS2, CNRS, Univ. Lorraine (France)

O3-2-03 15:20 – 15:40

Quasicrystal-related structure of Ce-Ti-O thin film on Pt(111)

Xu Li[1], T. Yamada[2], R. Tamura[3], J. Yuhara[1]

[1]Nagoya Univ. (Japan), [2]Dep. of Appl. Phys., Tokyo Univ. of Sci (Japan), [3]Dep. of Mater. Sci. and Tech., Tokyo Univ. of Sci. (Japan)

Break 15:40 – 16:00

Session 3-3 Chair: Ron Lifshitz

O3-3-01 ▸Invited 16:00 – 16:40

Making icosahedral quasicrystals through directional bonding

Eva G. Noya[1], C. K. Wong[2], P. Llombart[1], J. P. K. Doye[2]

[1]IQFR-CSIC (Spain), [2]Univ. of Oxford (UK)

O3-3-02 16:40 – 17:00

Controlled Self-Assembly of Periodic and Aperiodic Cluster Crystals in 2-Dimensional Binary Systems

Yuval Reches[1], S. Savitz[2], R. Lifshitz[1]

[1]Tel Aviv Univ. (Israel), [2]IQIM, Caltech (USA)

O3-3-03 17:00 – 17:20

Quasicrystals in binary (non-)additive hard disk mixtures

Etienne Fayen[1], M. Impéror-Clerc[1], A. Jagannathan[1], L. Filion[2], G. Foffi[1], F. Smallenburg[1]

[1]Univ. Paris-Saclay, CNRS (France), [2]Debye Inst. Nanomater. Sci., Utrecht Univ. (Netherlands)

Break 17:20 – 17:40

Session 3-4 Chair: Hem Raj Sharma

O3-4-01 ▸Invited 17:40 – 18:20

Emergent polarization and photovoltaic response in aperiodic van der Waals interface

Toshiya Ideue

QPEC & Dep. Appl. Phys., Univ. of Tokyo (Japan)

O3-4-02 18:20 – 18:40

Effect of a periodic substrate on the stability of a dodecagonal quasicrystal

Nydia Roxana Varela Rosales, Michael Engel

Inst. Multiscale Simulation, CBI, Friedrich-Alexander Univ. of Erlangen-Nürnberg (Germany)

O3-4-03 18:40 – 19:00

Complex Ultrathin Oxide Structures Revealed by Evolutionary Computations: O/PdIn(110)

T. Trevizam Dorini[1,3], F. Brix[1,3], A. Kokalj[2,3], P. Gille[4], J. Ledieu[1,3], V. Fournée[1,3], Emilie Gaudry[1,3]

[1]Univ. Lorraine, CNRS, IJL (France), [2]Jožef Stefan Inst. (Slovenia), [3]PACS2, IJL CNRS- Univ. Lorraine – JSI (France), [4]Ludwig Maximilians Univ. (Germany)

Dinner 19:00 – 20:30

Online Poster Session 3 Chair: Hiroyuki Takakura

5 min short presentations + Zoom breakout rooms 20:30 – 23:00

See the program for Online Poster Presentation

(End of the 3rd day)

【Thursday, June 23, 2022】

Onsite Poster Session

Foyer (2F) 10:00 – 12:00

Lunch 12:00 – 13:00

Session 4-1 Chair: Bertrand Toudic

O4-1-01 13:00 – 13:20

Thermal conductivity and lattice dynamics of aperiodic crystals

Marc de Boissieu[1], S. Pailhès[2], V. Giordanno[2]

[1]SIMaP, Univ. Grenoble Alpes, CNRS, Grenoble INP (France), [2]ILM, CNRS, Univ. Claude Bernard (France)

O4-1-02 13:20 – 13:40

Phonon-phason coupling of quasicrystals

J. Zhang, N. Bo, Y. Kamimura, Y. Tokumoto, Keiichi Edagawa

IIS, Univ. of Tokyo (Japan)

O4-1-03 13:40 – 14:00

Pseudogap structure and spatial-inversion and time-reversal symmetry breakings in the lattice dynamics of icosahedral AlPdMn

Masato Matsuura[1], Z. Jinjia[2], Y. Kamimura[2], K. Edawaga[2]

[1]CROSS (Japan), [2]ISS, Univ. of Tokyo (Japan)

O4-1-04 14:00 – 14:20

Canceled

Break 14:20 – 14:40

Session 4-2 Chair: Ryuji Tamura

O4-2-01 14:40 – 15:00

Magnetism and superconductivity of icosahedral quasicrystals and approximants

Kazuhiko Deguchi

Nagoya Univ. (Japan)

O4-2-02 ▸Invited 15:00 – 15:40

Magnetic long-range order and topology in icosahedral quasicrystal

Shinji Watanabe

Kyushu Inst. of Tech. (Japan)

Break 15:40 – 16:00

Session 4-3 Chair: Tsunetomo Yamada

O4-3-01 ▸Invited 16:00 – 16:40

Modulated Phases in Halometallates

Anna Gagor

Inst. Low Temp. and Struc. Res., Polish Acad. Sci. (Poland)

O4-3-02 16:40 – 17:00

The Local Atomic Structure of Icosahedral Systems by Atomic Resolution Holography

Jens R. Stellhorn[1], K. Kimura[2], K. Hayashi[2], N. Happo[3], M. de Boissieu[4]

[1]Hiroshima Univ. (Japan), [2]Nagoya Inst. of Tech. (Japan), [3]Hiroshima City Univ. (Japan), [4]Univ. Grenoble Alpes, CNRS, SIMaP (France)

O4-3-03 17:00 – 17:20

Dynamics of the incommensurately modulated phase Rb_2ZnCl_4

Geoffroy de Laitre[1], S. R. Kotla[2], S. van Smaalen[2], Y. Sidis[3], Q. Berrod[3,4], J-M. Zanotti[3,4], J. Ollivier[4], S. Raymond[4,5], F. Bourdarot[4,5], A. Piovano[4], G. Beutier[1], M. de Boissieu[1]

[1]SIMaP, Univ. Grenoble Alpes, CNRS, Grenoble-INP (France), [2]Univ. Bayreuth (Germany), [3]LLB, CNRS, CEA (France), [4]ILL (France), [5]IRIG, Univ. Grenoble Alpes, CEA (France)

Break 17:20 – 17:40

Session 4-4 Chair: Anuradha Jagannathan

O4-4-01 ▸Invited 17:40 – 18:20

Surface states of quasicrystals from bulk topology

Oded Zilberberg

Univ. Konstanz (Germany)

(End of the 4th day)

【Friday, June 24, 2022】

Onsite Poster Session

Foyer (2F) 10:00 – 12:00

Lunch 12:00 – 13:00

Session 5-1 Chair: Hiroyuki Takakura

O5-1-01 ▸Invited 13:00 – 13:40

Analysis of the $RERu_x$ chimney ladder structures

J.-M. Hübner, Sven Lidin

Lund Univ. (Sweden)

O5-1-02 13:40 – 14:00

Evolution of Charge Density Waves and Crystal Structure in $BaNi_2(As_{1-x}P_x)_2$

Amir-Abbas Haghighirad[1], T. Lacmann[1], K. Glazyrin[3], C. Meingast[1], M. Merz[1], G. Garbarino[2], S. M. Souliou[1], M. Le Tacon[1]

[1]Karlsruhe Inst. of Tech., IQMT (Germany), [2]ESRF (France), [3]DESY (Germany)

O5-1-03 14:00 – 14:20

Investigation of complex orders by single crystal X-ray and electron diffraction in the $Sr_2Sb_2O_{2+x}S_{3-x}$ and $Sr_2Sb_2O_{2+x}Se_{3-x}$ series

Olivier Pérez[1], Ph. Boullay[1], H. Kabbour[2], P. Roussel[2], S. Basha[2]

[1]CRISMAT, CNRS, ENSCAEN (France), [2]UCCS, ENSCL (France)

Break 14:20 – 14:40

Session 5-2 Chair: Nobuhisa Fujita

O5-2-01 ▸Invited 14:40 – 15:20

Square-triangle tilings: an infinite playground for soft matter

Marianne Impéror-Clerc[1], E. Fayen[1], L. Filion[2], G, Foffi[1], A. Jagannathan[1], P. Kalugin[1], J-F. Sadoc[1], F. Smallenburg[1]

[1]CNRS, Univ. Paris-Saclay (France), [2]Debye Inst. of Nanomater. Sci., Utrecht Univ. (Netherlands)

O5-2-02 15:20 – 15:40

Growth of quasicrystals via uncorrelated particle additions

S. Wolf[1], M. Engel[2], Michael Schmiedeberg[1]

[1]Inst. Theor. Phys., Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany), [2]Inst. Multiscale Simulation, Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany)

O5-2-03 15:40 – 16:00

Rectangle–triangle soft-matter quasicrystals with hexagonal symmetry

A. J. Archer[1], T. Dotera[2], Alastair M. Rucklidge[3]

[1]Loughborough Univ. (UK), [2]Kindai Univ. (Japan), [3]Univ. of Leeds (UK)

Short break 16:00 – 16:05

Closing 16:05 – 16:30

Ryuji Tamura

Announcements

(End of the conference)

Program for Online Poster Presentation

Date: June 20 - 22, 2022
Style: Online via Zoom
Ahead of the main poster session, 5 min short presentations will be given.
Time: 20:30 – 23:00 (JST), 13:30 – 16:00 (CEST)

【Monday, June 20, 2022】

Online Poster Session 1

Short presentations + Zoom breakout rooms 20:30 – 23:00

OP1-01

Biological hypercrystals

Enrique Maciá

Univ. Complutense de Madrid (Spain)

OP1-02

Symmetry breaking in the 3D charge density wave compound $EuAl_4$

Sitaram Ramakrishnan[1,2], S. R. Kotla[1], H. Agarwal[1], T. Rekis[1], J-K. Bao[1,3], C. Eisele[1], L. Noohinejad[4], M. Tolkiehn[4], C. Paulmann[4,5], B. Singh[6], R. Verma[6], B. Bag[6], R. Kulkarni[6], A. Thamizhavel[6], B. Singh[6], S. Ramakrishnan[6], S. van Smaalen[1]

[1]Univ. Bayreuth (Germany), [2]Hiroshima Univ. (Japan), [3]MGI & ICQMS, Shanghai Univ. (China), [4]DESY (Germany), [5]MPI, Univ. Hamburg (Germany), [6]TIFR (India)

OP1-03

Cancelled

OP1-04

Formation of 2/1 and 1/1 approximants in quaternary Al-Pd-Au-Yb system

Yeong-Gi So, A. Katagiri

Akita Univ. (Japan)

OP1-05

Many-valleys structure of the free-energy of RSB state of Al-based quasicrystals

Ikuzo Kanazawa

Tokyo Gakugei Univ. (Japan)

OP1-06

Hard and Soft X-ray Photoemission Study of the Au-Ga-Ce and Cd-Ce Quasicrystalline Approximants

Goro Nozue[1,2], A. Ose[1,2], M. Tsutsumi[1,2], H. Hashizume[1,2], H. Fujiwara[1,2], T. Kiss[1], S. Hamamoto[2], M. Oura[2], K. Tamasaku[2], M. Yabashi[2], T. Ishikawa[2], A. Higashiya[3], A. Yamasaki[4], S. Imada[5], A. Motouri[6], F. Labib[6], S. Suzuki[6], R. Tamura[6], A. Sekiyama[1,2]

[1]Osaka Univ. (Japan), [2]RIKEN SPring-8 (Japan), [3]Setsunan Univ. (Japan), [4]Konan Univ. (Japan), [5]Ritsumeikan Univ. (Japan), [6]Tokyo Univ. of Sci. (Japan)

OP1-07

First-principles study of Pentacene adsorption on the twofold surface of the Ag-In-Yb quasicrystal

Masanori Sato[1], T. Hiroto[2], Y. Matsushita[2], K. Nozawa[1]

[1]Kagoshima Univ. (Japan), [2]NIMS (Japan)

OP1-08

Towards an understanding of structure modulation in macromolecular systems of the Hyp-1/ANS protein complex

Joanna Smietanska[1], I. Buganski[1], J. Sliwiak[2], M. Jaskolski[2], M. Gilski[2], Z. Dauter[3], R. Strzalka[1], J. Wolny[1]

[1]AGH Uni. Sci. and Tech. (Poland), [2]IBCH, Polish Acad. Sci. (Poland), [3]A. Mickiewicz Univ. (Poland), [4]SRRC, MCL, National Cancer Inst., Argonne National Lab. (USA)

OP1-09

High pressure magnetic measurements of the ternary R-Au-Si Tsai and pseudo-Tsai phases

Fernand Denoel[1], H. Breton[2], G. Gebresenbut[3], P. Lazor[2], R. Mathieu[1], C. P. Gomez[3]

[1]Dep. of Mater. Sci. and Eng., Uppsala Univ. (Sweden), [2]Dep. of Earth Sci., Uppsala Univ. (Sweden), [3]Angstrom Lab., Uppsala Univ. (Sweden)

OP1-10

Structural study of ternary Ga-Pd-Tb alloy with hexagonal structure formed near the two Tsai-type approximants

Takanobu Hiroto[1], N. Hatakeyama[2], K. Takagi[2], Y.-G. So[2], Y. Matsushita[1]

[1]NIMS (Japan), [2]Akita Univ. (Japan)

OP1-11

Structure modelling of quasicrystals with the statistical method

Janusz Wolny, R. Strzałka, I. Bugański, J. Śmietańska

AGH Uni. Sci. and Tech. (Poland)

OP1-12

Machine learning models for identification of hypermaterial phases from powder X-ray diffraction patterns

Hirotaka Uryu[1], T. Yamada[1], N. Miyao[2], A. Ishikawa[2], R. Tamura[2], Y. Iwasaki[3], K. Kitahara[3], K. Kimura[3], L. Chang[4], R. Yoshida[4]

[1]Dep. of Appl. Phys., Tokyo Univ. of Sci. (Japan), [2]Dep. of Mater. Sci. and Tech., Facul. of Adv. Eng., Tokyo Univ. of Sci. (Japan), [3]Univ. of Tokyo (Japan), [4]IMS (Japan)

OP1-13

Cancelled

OP1-14

Strongly correlated electron behaviors in Au-Si-RE (RE = Ce and Pr) 1/1 quasicrystalline approximants

Yuji Muro[1], T. Namiki[2], T. Kuwai[2], S. Suzuki[3], R. Tamura[3]

[1]Toyama Prefectural Univ. (Japan), [2]Univ. Toyama (Japan), [3]Tokyo Univ. Sci. (Japan)

【Tuesday, June 21, 2022】

Online Poster Session 2

Short presentations + Zoom breakout rooms 20:30 – 23:00

OP2-01

Extended Golay-Rudin-Shapiro structures

Dvir Flom, S. I. Ben-Abraham

Ben-Gurion Univ. of the Negev (Israel)

OP2-02

A Phase Field Crystal Model of Patchy Colloids in 2D

Robert F. B. Weigel, M. Schmiedeberg

Inst. Theor. Phys., Friedrich-Alexander-Univ. Erlangen-Nurnberg (Germany)

OP2-03

Effect of Pt substitution on formation and magnetism of Ga-Pd-Tb 2/1 approximant

Yeong-Gi So[1], K. Takagi[1], T. J. Sato[2]

[1]Akita Univ. (Japan), [2]IMRAM, Tohoku Univ. (Japan)

OP2-04

Application of Bayesian Optimization to Calculations of Adsorption Energy of Bi on i-Ag-In-Yb quasicrystal

Shimpei Kitahara[1], D. Harada[2], K. Nozawa[2], Y. Ishii[1]

[1]Chuo Univ. (Japan), [2]Kagoshima Univ. (Japan)

OP2-05

Affine H_2 in Affine A_4: Group Theoretical Analysis of Penrose-like Tilings

Nazife Ozdes Koca[1], M. Koca[2], R. Koc[3]

[1]Sultan Qaboos Univ. (Oman), [2]Cukurova Univ. (Turkey), [3]Gaziantep Univ. (Turkey)

OP2-06

Cancelled

OP2-07

Partial spectrum descriptors of local magnetic environments

Michi-To Suzuki[1], E. V. Morooka[2], Y. Yanagi[1], T. Nomoto[3], H. Kusunose[4]

[1]IMR, Tohoku Univ. (Japan), [2]Aalto Univ. (Finland), [3]Univ. of Tokyo (Japan), [4]Meiji Univ. (Japan)

OP2-08

Hyperspace-simulations of quasicrystalline structures on periodic substrates

Johannes Schottner, M. Schmiedeberg

Inst. Theor. Phys. I, Friedrich-Alexander-Univ. Erlangen-Nurnberg (Germany)

OP2-09

Thermoelectric properties of Au-(Al, Ga, In)-Gd Tsai-type approximants

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OP2-10

Canceled

OP2-11

A Study of localised boundary states in some Non-Hermitian systems

Aditya Sharma

IISER Tirupati (India)

OP2-12

Structure of hexagonal ζ'-AlMnCo

Y. Makino, Kazumasa Sugiyama, T. Kawamata

IMR, Tohoku Univ.

OP2-13

Magnetically ordered states in the Hubbard model on the two-dimensional golden-mean tilings

Toranosuke Matsubara[1], A. Koga[1], S. Coates[2]

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OP2-14

Canceled

【Wednesday, June 22, 2022】

Online Poster Session 3

Short presentations + Zoom breakout rooms 20:30 – 23:00

OP3-01

Canceled

OP3-02

Compression behaviours of a 3D-printed quasicrystal

Naima Saadi[1], S. Coates[2], R. McGrath[3], H. Sharma[3], E. G. Tuñón[1,4]

[1]Univ. of Liverpool (UK), [2]Tokyo Univ. of Sci. (Japan), [3]Sur. Sci. Res. Cen., Univ. of Liverpool (UK), [4]Mater. Innov. Factory, Univ. of Liverpool (UK)

OP3-03

Self-assembly of New Crystal Structures Using Highly Tunable Particle Interactions

Hillary Pan, J. Dshemuchadse

Cornell Univ. (USA)

OP3-04

New hexagonal phase containing icosahedral Tb clusters in Ga-Pd-Tb alloy

Yeong-Gi So[1], N. Hatakeyama[1], M. Terashita[1], R. Seki[1], T. Hiroto[2], T. J. Sato[3]

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OP3-05

An incommensurately modulated composite structure in the Nd-Ru system

Julia M. Hubner, S. Lidin

Lund Univ. (Sweden)

OP3-06

Tilings in ABC star block copolymers using Strong Segregation Theory

Merin Joseph, A. M. Rucklidge, D. J Read

Univ. of Leeds (UK)

OP3-07

Efficient algorithm for simulating particles in true quasiperiodic environments

Atahualpa S. Kraemer, A. R. Mendoza-Sosa

National Autonomous Univ. of Mexico (Mexico)

OP3-08

Short and medium range ordering in Al_3Mn amorphous alloy prepared by magnetron sputtering

Toru Kawamata, K. Sugiyama

IMR, Tohoku Univ. (Japan)

OP3-09

Neutron scattering study on the magnetic quasicrystal approximant $Au_{70}Al_{16}Tb_{14}$

Kazuhiro Nawa[1], D. Okuyama[1], A. Ishikawa[2], R. Tamura[3], T. J Sato[1]

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OP3-10

Utility of the information criterion in the structure determination of single crystal and modulated composite crystal

Yoshito Gotoh

NMIJ, AIST (Japan)

OP3-11

Surface and interface structures of Al-Fe thin films: from metastable to high temperature phases

Julian Ledieu[1,4], D. Dubaux[1,4], F. Brix[1,4], É. Gaudry[1,4], M.-C. de Weerd[1,4], P. Gille[2], S. Šturm[3,4], M. Podlogar[3,4], J. Ghanbaja[1,4], S. Migot[1,4], M. Sicot[1,4], V. Fournée[1,4]

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OP3-12

One-step synthesis of non-equilibrium Pd-Ru alloys from Al-Pd-Ru quasicrystals and approximants

T. Fukushima[1,2], R. Tsukuda[1,2], S. Ohhashi[2], N. Fujita[2], Satoshi Kameoka[2]

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OP3-13

A tale of two kinds of exceptional point in a hydrogen molecule

Suriyaa Valliapan[1], H. Barman[2]

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OP3-14

A 6-fold golden-mean tiling with four tiles

S. Coates[1], T. Matsubara[2], Akihisa Koga[2]

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(End of the Program for Online Poster Presentation)