ICQ16
16th INTERNATIONAL CONFERENCE on QUASICRYSTALS

PROGRAM

THE 16TH 2025 INTERNATIONAL CONFERENCE ON QUASICRYSTALS

22–27 JUNE 2025
NANCY, FRANCE

THE CONFERENCE VENUE

Access

The ICQ16 conference will be held on ENSIC Campus. ENSIC is located in the city center of Nancy, at a walking distance from the railway and tram station.

You can access to the ENSIC by:

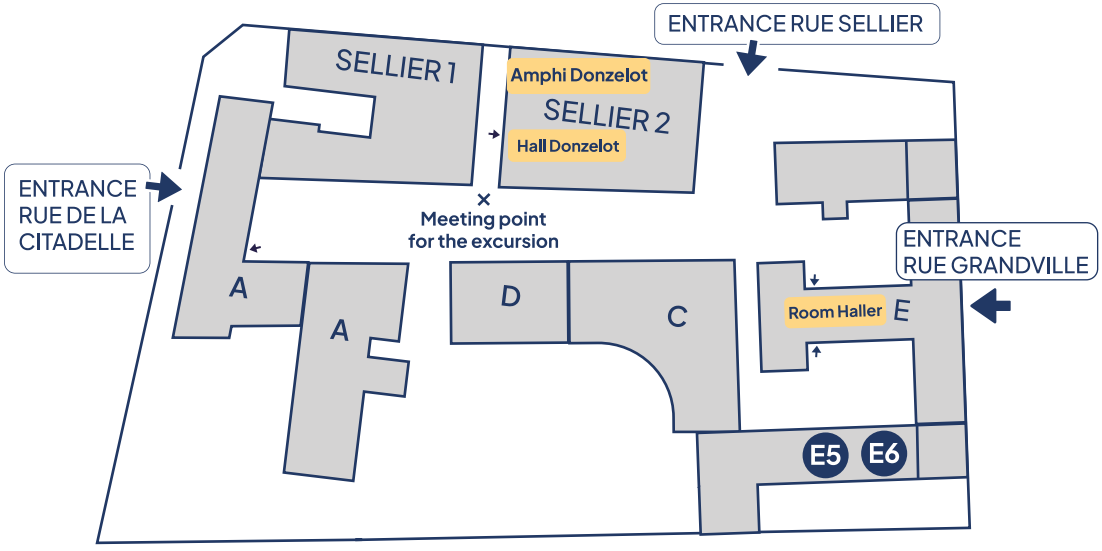
- The entrance Grandville, by the large wooden door (ENSIC main entrance, close at 17:00)
- The door of the Craffe, rue de la Citadelle, by the blue grid
- The Rue Sellier, by the blue grid

Address: Ensic, 1 rue Grandville, 54000, Nancy, FRANCE.

Hall Donzelot	**Amphi Donzelot**	**Room Haller**
Welcome desk	Scientific session	Coffee breaks
Lunch bag distribution	Open lecture	Lunch buffet

Room E5 & E6

Poster exhibition &Work space



General overview

<table>
<tr><th>Sunday, June 22nd</th><th>Monday, June 23rd</th><th>Tuesday, June 24th</th><th>Wednesday, June 25th</th><th>Thursday, June 26th</th><th>Friday, June 27th</th></tr>
<tr><td rowspan="10"></td><td colspan="5">8:30–9:00 | Welcome participant</td></tr>
<tr><td>9:00–9:30
Opening</td><td rowspan="2">9:00–11:00
Session 5</td><td>9:00–10:30
Session 9</td><td rowspan="2">9:00–10:40
Session 11</td><td rowspan="2">9:00–10:30
Session 15</td></tr>
<tr><td>9:30–11:00
Session 1</td><td>10:30–11:00
Coffee break
Room Haller</td></tr>
<tr><td colspan="2">11:00–11:30 | Coffee break | Room Haller</td><td>11:00–12:00
Session 10</td><td>10:40–11:20
Coffee break
Room Haller</td><td>10:30–11:00
Coffee break
Room Haller</td></tr>
<tr><td>11:30–12:40
Session 2</td><td>11:30–12:40
Session 6</td><td>12:00–12:30
Lunch bag</td><td>11:20–12:30
Session 12</td><td>11:00–12:40
Summary and closing</td></tr>
<tr><td colspan="2">12:40–14:00 | Lunch | Room Haller</td><td rowspan="4">12:30–20:00
Excursion</td><td>12:30–14:00
Lunch | Room Haller</td><td></td></tr>
<tr><td>14:00–15:30
Session 3</td><td>14:00–15:30
Session 7</td><td>14:00–15:30
Session 13</td><td>14:00
Post-conference tour</td></tr>
<tr><td colspan="2">15:30–16:30
Poster session & Coffee Break | Room E6</td><td>15:30–16:00
Coffee break
Room Haller</td><td rowspan="3"></td></tr>
<tr><td>16:30–18:00
Session 4</td><td>16:30–17:40
Session 8</td><td>16:00–17:00
Session 14</td></tr>
<tr><td>18:00–20:00
Welcome Cocktail
Pick up your badge</td><td>18:15–19:00
Open Lecture
Jean-Marie Dubois</td><td></td><td></td><td>20:00–23:00
Gala Dinner
Opéra National
de Lorraine</td></tr>
</table>

Detailed scientific program

Session 1: Formation, growth and phase stability Chair: M. de Boissieu Monday, June 23rd | 9:30-11:00		
9:30	Invited speaker 30 '	**Quasicrystals from the edge: Extreme environments, impact craters, and the quest in other celestial bodies** **Luca Bindi** *University of Florence, Italy*
10:00	Regular Talk 20 '	**New icosahedral quasicrystals and approximants in Zn-TMYb (TM=transition metal)** **S. Fujino**[1], L.Farid[2], A.Ishikawa[2], R.Tamura[3], H.Takakura[4], T.Yamada[1] *1- Department of Applied Physics, Tokyo University of Science, Tokyo, Japan* *2-Research Institute of Science and Technology, Tokyo University of Science, Tokyo, Japan* *3-Department of Materials Science and Technology, Tokyo University of Science, Tokyo, Japan* *4-Division of Applied Physics, Faculty of Engineering, Hokkaido University, Sapporo, Japan*
10:20	Regular Talk 20 '	**A new oF-type elemental boron phase synthesized by the rapid quenching - Search for semiconducting quasicrystal** **K. Kimura**[4,7], K. Yubuta[1], A. Yasuhara[2], A. Yamano[3], T. Hiroto[4], W. Hayami[4], J. T. Okada[5], K. Sugiyama[5], N. Uemura[6] *1-ARG, Shinshu University, Matsumoto, Nagano, Japan* *2-JEOL Ltd., Akishima, Tokyo, Japan* *3-Rigaku Corp., Matsubara, Akishima, Tokyo, Japan* *4-National Institute for Materials Science, Tsukuba, Ibaraki, Japan* *5-Institute for Materials Research, Tohoku University, Sendai, Miyagi, Japan* *6-Faculty of Engineering, Kyoto University of Advanced Science, Kyoto, Japan* *7-The Institute of Statistical Mathematics, Midori-cho, Tachikawa, Tokyo, Japan*
10:40	Regular Talk 20 '	**Theoretical analysis of Tsai-like and Bergman-like models of 1/1 ZnMgHf periodic approximant crystal** **I. Buganski**[1], R. Strzalka[1], J. Wolny[1], S. Vrtnik[2], P. Koželj[3], N. Fujita[4] *1-Faculty of Physics and Applied Computer Science, AGH University of Krakow, Krakow, Poland* *2-Jožef Stefan Institute, Jamova 39, Ljubljana, Slovenia* *3-University of Ljubljana, Faculty of Mathematics and Physics, Jadranska 19, Ljubljana, Slovenia* *4-Tohoku University, Institute of Multidisciplinary Research for Advanced Materials, Sendai, Japan*

Session 2: Formation, growth and phase stability Chair: M.Widom Monday, June 23rd | 11:30-12:40		
11 :30	Invited speaker 30 '	**Quasicrystal stability and nucleation kinetics from density functional theory** **Woohyeon Baek** *University of Michigan, United States*
12:00	Regular Talk 20 '	**Structural Stability and Transport Properties of TiZrNi Quasicrystals under High Pressure** **Jaeyong Kim,** Bin Li *Department of Physics, Hanyang University, Seoul, 04763, Korea*
12:20	Regular Talk 20 '	**Phason relaxation in the Spectre tiling** **Joshua E. S. Socolar** *Physics Department, Duke University, Durham, NC, USA*

Session 3: Structure end modeling Chair: T.Yamada Monday, June 23rd | 14:00-15:30		
14 :00	Invited speaker 30 '	**Aperiodic tilings for relating crystals, quasicrystals and modulated structures** **Matsubara Toranosuke** *Institute of Science Tokyo, Japan*
14:30	Regular Talk 20 '	**Zero-temperature structure of icosahedral quasicrystals: density-functional scrutiny** **M. Mihalkovič** *Institute of Physics, Slovak Academy of Sciences, Dubravska cesta 9, Bratislava, Slovakia*
14:50	Regular Talk 20 '	**Theoretical insights into ultrathin oxide films on metals and alloys: unraveling structures and stabilities** **E. Gaudry**, M. Weiliang, T. T. Dorini, *Univ. Lorraine, CNRS UMR 7198 Institut Jean Lamour, Campus Artem, Nancy, France*
15:10	Regular Talk 20 '	**Hyperuniform properties of the square-triangle tilings** **A. Koga**[1], S. Sakai[2], Y. Matsushita[3], T. Ishimasa[4] *1-Department of Physics, Institute of Science Tokyo, Meguro, Tokyo, Japan* *2-Center for Emergent Matter Science, RIKEN, Wako, Saitama, Japan* *3-Toyota Physical and Chemical Research Institute, Nagakute, Aichi, Japan* *4-Department of Applied Physics, Hokkaido University, Sapporo, Japan*

Session 4: Mathematics of quasiperiodic and aperiodic structures Chair: N.Fujita Monday, June 23rd | 16:30-18:00		
16:30	Invited speaker 30 '	**Structure of the hexagon clusters in the Smith et al. Spectre tilings** **Arnaud Chéritat** *Institut de Mathématiques de Toulouse, UMR5219, France*
17:00	Regular Talk 20 '	**On the long-range order of the Spectre family of tilings** **F. Gähler[1]**, M. Baake[1], J. Mazáč[1], L. Sadun[2] *1-Faculty of Mathematics, Bielefeld University, Bielefeld, Germany* *2-Department of Mathematics, University of Texas, Austin, TX, USA*
17:20	Regular Talk 20 '	**Diffraction of aperiodic monotile tilings** **J. Mazáč[1],** M. Baake[1], F. Gähler[1], A. Mitchell[2] *1-Fakultät für Mathematik, Universität Bielefeld, Universitätsstraße 25, Bielefeld, Germany* *2-Faculty of Science, Technology, Engineering and Mathematics, The Open University, Milton Keynes, MK7 6AA, UK*
17:40	Regular Talk 20 '	**Homochiral inflation for the aperiodic monotile Tile(1,1)** **M. Imperor-Clerc**, Jean-François Sadoc *Laboratoire de Physique des Solides, CNRS and Université Paris-Saclay, Orsay, France*

Session 5: Structure end modeling Chair: E. Gaudry Tuesday, June 24th | 9:00-11:00		
9:00	Invited speaker 30 '	**Phason modes in icosahedral quasicrystals** **Tsunetomo Yamada** *Tokyo University of Science, Japan*
9:30	Regular Talk 20 '	**The phonons of oxide quasicrystals by surface-sensitive inelastic electron scattering** **W. Widdra**, F. Schumann, H. Herrmann, S. Schenk, S. Förster *Institute of Physics, Martin-Luther-Universität Halle-Wittenberg, Halle, Germany*
9:50	Regular Talk 20 '	**Ab initio calculations of magnetism in Cd6Tb 1/1 periodic approximant of a Tsai-type quasicrystal** **G. Kuderowicz**, I. Buganski *Faculty of Physics and Applied Computer Science, AGH University of Krakow, al. Adama Mickiewicza 30, Krakow, Poland*
10:10	Invited speaker 30 '	***Accelerating quasicrystal discovery with machine learning*** **Chang Liu** *The Institute of Statistical Mathematics, Japan*
10:40	Regular Talk 20 '	**Fingerprinting Phason Strain Using Diffuse Multiple Scattering** **M. de Boissieu[2]**, A. G. A. Nisbet[1], G. Beutier[2], T. Yamada[3], H. Takakura[4] *1-Diamond Light Source, Harwell Science & Innovation Campus, United Kingdom* *2-Univ. Grenoble Alpes, CNRS, SIMAP, Grenoble, France* *3-Department of Applied physics, Tokyo University of Science, Tokyo, Japan* *4-Faculty of Engineering, Hokkaido University, Sapporo, Japan*

Session 6: Mathematics of quasiperiodic and aperiodic structures Chair: M.Imperor-Clerc Tuesday, June 24th | 11:30-12:40		
11 :30	Invited speaker 30 '	**Monstrous Covariograms of Rauzy Fractals** **Anna Klick** *Fakultät für Mathematik, Bielefeld, Germany*
12:00	Regular Talk 20 '	**Octagonal tilings with three prototiles: part 1** **Samuel Coates[2]**, April Lynne D. Say-Awen[1] *1-Department of Mathematics and Statistics, De La Salle University, Malate, Manila, Philippines* *2-Surface Science Research Centre, Department of Physics, University of Liverpool, Liverpool, United Kingdom*
12:20	Regular Talk 20 '	**Octagonal tilings with three prototiles: part 2** **April Lynne D. Say-Awen[1]**, Samuel Coates[2] *1-Department of Mathematics and Statistics, De La Salle University, Malate, Manila, Philippines* *2-Surface Science Research Centre, Department of Physics, University of Liverpool, Liverpool, United Kingdom*

Session 7: Mathematics of quasiperiodic and aperiodic structures Chair: N.Manibo Tuesday, June 24th | 14:00-15:30		
14 :00	Regular Talk 20 '	**The three-colour problem in quasiperiodic tilings** **Reinhard Lück** *Weilstetter Weg 16, Stuttgart, Germany* *Retired from Max-Planck Institute for Metals Research (now MPI for Intelligent Systems)*
14:20	Regular Talk 20 '	**Numerical methods for quasiperiodic systems** **K. Jiang** *Mathematics and Computational Science, Xiangtan University, Xiangtan, Hunan, China*
14:40	Regular Talk 20 '	**A novel variant of rhombic Penrose tiling** **N. Fujita[1]**, K. Niizeki[2] 1-Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan 2-Professor Emeritus, Department of Physics, Graduate School of Science, Tohoku University, Sendai, Japan
15:10	Regular Talk 20 '	**Mathematical modelling of piezoelectric quasicrystals and quasicrystals** **M. Lazar**, E. Agiasofitou *Institute for Mechanics, Technical University of Darmstadt, Darmstadt, Germany*

Session 8: Physical properties: transport, magnetic, dynamical, mechanical etc. Chair: T.Nayuta Tuesday, June 24th | 16:30-17:40		
16 :30	Invited speaker 30 '	**Lattice dynamics in quasicrystal i-AlPdMn and 1/1 approximant AgInYb** **Masato Matsuura** *Comprehensive Research Organization for Science and Society, Japan*
17:00	Regular Talk 20 '	**Phason dynamics for dodecagonal quasicrystals based on the elastodynamic model of wave-telegraph type** **E. Agiasofitou**, M. Lazar *Institute for Mechanics, Technical University of Darmstadt, Darmstadt, Germany*
17:20	Regular Talk 20 '	**Soft and hard x-ray spectroscopies of magnetic Au-Al-Tb quasicrystal approximants** **G. Nozue[1,2]**, H. Fujiwara[1,2], Y. Torii[1,2], M. Sakaguchi[1,2], S. Nakajima[1], T. Nakamura[1,2], N. Sakamoto[1,2], T. Kiss[1], S. Hamamoto[2], M. Oura[2], A. Yasui[3], K. Higashi[3], N. Kawamura[3], K. Mimura[4], A. Tanaka[5], A. Ishikawa[6], F. Labib[6], T. D. Yamamoto[7], R. Tamura[7], A. Sekiyama[1,2] *1-Graduate School of Engineering Science, The University of Osaka, Toyonaka, Osaka, Japan* *2-RIKEN SPring-8 Center, Sayo, Hyogo, Japan* *3-Japan Synchrotron Radiation Research Institute, Sayo, Hyogo, Japan* *4-Graduate School of Engineering, Osaka Metropolitan University, Sakai, Osaka, Japan* *5-Department of Quantum Matter, ADSM, Hiroshima University, Higashi-hiroshima, Hiroshima, Japan* *6-Research Institute for Science & Technology, Tokyo University of Science, Tokyo, Japan* *7-Department of Materials Science & Technology, Tokyo University of Science, Tokyo, Japan*

Session 9: Physical properties: transport, magnetic, dynamical, mechanical etc Chair: J.Dolinsek Wednesday, June 25th | 9:00-10:30		
9:00	Invited speaker 30 '	**Superconductivity in quasicrystals** **Takemori Nayuta** *University Osaka, Japan*
9:30	Regular Talk 20 '	**Superconductivity of icosahedral approximants with Tsai-type clusters** **K. Deguchi**, Y. Nakamura, K. Yokoo, H. Taniguchi *Department of Physics, Graduate School of Science, Nagoya University, Nagoya, Japan*
9:50	Regular Talk 20 '	**Electrical Resistivity of Quasicrystals Calculated from First Principles** **M. Widom[6]**, V. Raghuraman[1], Y. Wang[2], Y. Huang[3], M. Mihalkovic[4], M. Eisenbach[5] *1-Department of Chemistry, University of Illinois Urbana-Champaign, Urbana, Illinois, USA* *2-Pittsburgh Supercomputing Center, Carnegie Mellon University, Pittsburgh, Pennsylvania, USA* *3-University of Science and Technology of China, Hefei, People's Republic of China; and Suzhou Institute for Advanced Research, University of Science and Technology of China, Suzhou 215213, People's Republic of China* *4-Institute of Physics, Slovak Academy of Sciences, Bratislava, Slovak Republic* *5-National Center for Computational Sciences, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA* *6-Department of Physics, Carnegie Mellon University, Pittsburgh, Pennsylvania, USA*
10:10	Regular Talk 20 '	**Thermoelectric properties of icosahedral quasicrystals and 3/2 periodic approximants in the Al-Pd-TM-Fe (TM=Mo,W) systems** **M. Aoyama[1]**, H. Takakura[2], Y. Iwasaki[3], K. Deguchi[4], N. Fujita[1] *1-Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan* *2-Division of Applied Physics, Faculty of Engineering, Hokkaido University, Sapporo, Japan* *3-National Institute for Materials Science, Tsukuba, Japan* *4-Department of Physics, Graduate School of Science, Nagoya University, Nagoya, Japan*

Session 10: Physical properties: transport, magnetic, dynamical, mechanical etc. Chair: M.Baake Wednesday, June 25th | 11:00-12:00		
11:00	Invited speaker 30 '	**Long-range magnetic order in icosahedral quasicrystals** **Ryuji Tamura** *Tokyo University of Science, Japan*
11:30	Invited speaker 30 ''	**Graphene-based moiré quasicrystals** **Ron Lifshitz** *Tel Aviv University, Israel*

Session 11: Surfaces and overlayers, reactivity, catalysis Chair: J.Ledieu Thursday, June 26th | 9:00-10:40		
9:00	Invited speaker 30 ‘	**The random tiling character of oxide quasicrystals** **Stefan Förster** Institute of Physics, Martin-Luther-UniversitÃ¤t Halle-Wittenberg, Germany
9:30	Regular Talk 20 ‘	**Analysis of Dislocations in Dodecagonal Oxide Quasicrystals** **Meshy Ochana**[1], Sebastian Schenk[2], Stefan Förster[2], Wolf Widdra[2], Ron Lifshitz[1] *1-Raymond and Beverly Sackler School of Physics & Astronomy, Tel Aviv University, Tel Aviv, Israel* *2-Institute of Physics, Martin-Luther- Universität Halle-Wittenberg, Halle, Germany*
9:50	Invited speaker 30 ‘	**Intermetallic PdGa - From Chirality Transfer to the World Smallest Molecular Motor** **Roland Widmer** *Swiss Federal Laboratories for Materials Science and Technology, Switzerland*
10:20	Regular Talk 20 ‘	**Ta–Te van der Waals layered quasicrystal: Synthesis of submillimeter scale single grains and synthesis of ternary systems** **Y. Tokumoto**, K. Kasai, R. Uchimoto, K. Edagawa *Institute of Industrial Science, The University of Tokyo, 4-6-1 Komaba, Meguro-ku, Tokyo, Japan*

Session 12: Physical properties: transport, magnetic, dynamical, mechanical etc./ New Frontiers Chair: K.Kimura Thursday, June 26th | 11:20-12:30		
11 :20	Invited speaker 30 ‘	**Relation between 1D quasicrystals and 2D Quantum Hall problems** **Anuradha Jagannathan** *Laboratoire de Physique des Solides, France*
11:50	Regular Talk 20 ‘	**Magnetic phase diagrams of Tsai-type approximant crystals: From 1/1 to 5/3 approximant structures** **T. Sugimoto**[1], T. Yamada[2] *1-Center for Quantum Information and Quantum Biology, Osaka University, Toyonaka, Osaka, Japan* *2-Department of Applied Physics, Tokyo University of Science, Katsushika, Tokyo, Japan*
12:10	Regular Talk 20 ‘	**Laser powder bed fusion of an approximant Au–Si–Gd phase reinforced Au matrix composite** **F. Saito**[1], Y. Shirota[1], T. Nakazawa[1], S. Kubota[1], R. Tamura[2] *1-Metallic Materials Development Department, TANAKA PRECIOUS METAL TECHNOLOGIES Co., Ltd., Kanagawa, Japan* *2-Dept. of Mater. Science and Technology, Tokyo University of Science, Tokyo, Japan*

Session 13: New Frontiers, strongly correlated electron systems, quantum materials/Related topics Chair: W.Widdra Thursday, June 26th | 14:00-15:30		
14:00	Invited speaker 30 '	**Non-ergodic phenomena in substituted intermetallics and alloys** **Primož Koželj** Jozef Stefan Institute, University of Ljubljana, Slovenia
14:30	Regular Talk 20 '	**Local Atomic Order in High-Entropy Alloys Studied by Atomic-Resolution Holography** **J. R. Stellhorn[1],** A. Fantin[2], A. Minelli[3], N. Blanc[4], N. Happo[5] *1-Co-Creation Institute for Advanced Materials, Shimane University, Matsue, Japan* *2-Bundesanstalt für Materialforschung und -prüfung (BAM), Berlin, Germany* *3-Oak Ridge National Laboratory, Oak Ridge TN, USA* *4-ESRF, Grenoble, France* *5-Hiroshima City University, Hiroshima, Japan*
14:50	Regular Talk 20 '	**Band structures in sonic quasicrystals** **T. Dotera**, A. Sugahara *Kindai University, Higashi-Osaka, Osaka, Japan*
15:10	Regular Talk 20 '	**Cluster quasicrystals composed of ultrasoft particles vs. soft quasicrystals built of colloids with hard cores** **M. Schmiedeberg**, R.F.B. Weigel *Theoretical Physics: Lab for Emergent Phenomena, Soft Matter Theory Group, Friedrich-Alexander-Universität Erlangen-Nürnberg, 91058 Erlangen, Germany*

Session 14: Mixed Chair: D.Tomonari Thursday, June 26th | 16:00-16:40		
16:00	Regular Talk 20 '	**Large-scale database analysis of anomalous thermal conductivity of quasicrystals and its application to thermal diodes** **K. Edagawa**, T. Kurono, J. Zhang, Y. Kamimura Institute of Industrial Science, The University of Tokyo, Tokyo, Japan
16:20	Regular Talk 20 '	**Complex Dynamical Systems arising from Substitutions** **E.D. Miro[2],** B.C.L. Felipe[1], J.R.R. Mijares[2], L.S. Silvestre[2] *1-Department of Mathematics and Physics, Central Luzon State University, Science City of Muñoz 3120* *2-Department of Mathematics, Ateneo de Manila University, Quezon City 1108*

Session 15: Related topics: incommensurate/modulated structures, metallic glass, high entropy alloys, complex metallic alloys, cage compounds, clusters etc. Chair: A.Jagannathan Friday, June 27th | 9:00-10:30		
9:00	Invited speaker 30 ‘	**Growth and properties of epitaxial CoCrFeNi high-entropy alloy thin films** **Thomas Seyller** *Chemnitz University of Technology, Germany*
9:30	Regular Talk 20 ‘	**Complex magnetism of single-crystalline AlCoCrFeNi nanostructured high-entropy alloy** **A. Jelen[1],** P. Koželj[1,2], S. Vrtnik[1], J. Luzar[1], M. Feuerbacher[3], J. Dolinšek[1, 2] *1-J. Stefan Institute, Jamova 39, Ljubljana, Slovenia* *2-Faculty of Mathematics and Physics, University of Ljubljana, Jadranska 19, Ljubljana, Slovenia* *3-Ernst Ruska-Centre for Microscopy and Spectroscopy with Electrons, Forschungszentrum Jülich GmbH, Jülich, Germany*
9:50	Regular Talk 20 ‘	**Phasons in the incommensurately modulated Rb2ZnCl4 phase** **M. de Boissieu[1]**, G. 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] *1-Univ. Grenoble Alpes, CNRS, Grenoble INP-UGA, SIMaP, Grenoble, France* *2-Laboratory of Crystallography, University of Bayreuth, Bayreuth, Germany* *3-LLB, CNRS, CEA Gif-sur-Yvette, France* *4-ILL, Grenoble, France 5 Univ. Grenoble Alpes, IRIG, CEA, Grenoble, France*
10:10	Regular Talk 20 ‘	**“ Self-compression” and thermal lock-in phase transition in an aperiodic composite crystal** **B. Toudic[1],** P. Rabiller[1], C. Mariette[1], L. Guérin[1], M. D. Hollingsworth[2], B. Wang[2], I. Frantsuzov[2] *1-Institut de Physique de Rennes, UMR CNRS 6251, Université de Rennes, Rennes, France* *2-Department of Chemistry, Kansas State University, Manhattan, Kansas, USA*

LIST OF POSTERS

POSTER EXHIBITION | ROOM E6

P1	**AI-based search for semiconducting quasicrystals** **Kaoru Kimura**[1], Minoru Kusaba[1], Yutaka Iwasaki[2], Erina Fujita[1,2], Takanobu Hiroto[2], Asuka Ishikawa[3], Chang Liu[1], Yukari Katsura[2], Ryuji Tamura[3], Ryo Yoshida[1,2] *1-The Institute of Statistical Mathematics (ISM), Midori-cho, Tachikawa, Tokyo, Japan* *2-National Institute for Materials Science (NIMS), Tsukuba, Ibaraki, Japan* *3-Department of Materials Science and Technology, Tokyo University of Science, Katsushika,Tokyo, Japan*
P2	**Stability of diverse dodecagonal quasicrystals in T-shaped liquid crystalline molecules** **Xin Wang**[1], An-Chang Shi[2], Pingwen Zhang[3,4], Kai Jiang[1] *1-Hunan Key Laboratory for Computation and Simulation in Science and Engineering, Key Laboratory of Intelligent Computing and Information Processing of Ministry of Education, School of Mathematics and Computational Science, Xiangtan University, Xiangtan, Hunan, China,* *2-Department of Physics and Astronomy, McMaster University, Hamilton, Ontario, Canada* *3-School of Mathematics and Statistics, Wuhan University, Wuhan, China* *4-School of Mathematical Sciences, Peking University, Beijing, China*
P3	**Synthesis of Ga-Pd-RE (RE = Sm, Gd-Tm) i-QC by melt spinning** **Rei Naito**[1], T. D.Yamamoto[1], F. Labib[2], A. Ishikawa[2], R. Tamura[1] *1-Tokyo Univ. of Science, 6-3-1 Nijuku, Katsushika City, Tokyo, Japan* *2-Res. Ins. of Sci. and Tech., Tokyo Univ. of Sci. 6-3-1 Nijuku, Katsushika City, Tokyo, Japan*
P4	**HYPOD-X: Comprehensive experimental datasets of quasicrystals and their approximants** **Erina Fujita**[1,2], Chang Liu[1], Asuka Ishikawa[3], Tomoya Mato[2], Koichi Kitahara[4], Ryuji Tamura[3], Kaoru Kimura[1,2], Ryo Yoshida[1,2,5], Yukari Katsura[2,6,7] *1-The Institute of Statistical Mathematics (ISM), Research Organization of Information and Systems, Tachikawa, Tokyo 190-8562, Japan* *2-National Institute for Materials Science (NIMS), Tsukuba, Ibaraki, Japan* *3-Department of Materials Science and Technology, Tokyo University of Science, Katsushikaku, Tokyo, Japan* *4-Department of Materials Science and Engineering, National Defense Academy, Yokosuka, Kanagawa, Japan* *5-Graduate University for Advanced Studies, SOKENDAI, Tachikawa, Tokyo, Japan* *6-Graduate School of Science and Technology, Tsukuba University, Tennodai, Tsukuba, Ibaraki, Japan.* *7-RIKEN Center for Advanced Intelligence Project, RIKEN, Chuo-ku, Tokyo, Japan*
P5	**Chiral spiral cyclic twins** **W. Hornfeck** *FZU - Institute of Physics of the Czech Academy of Sciences, Na Slovance 1999/2, Prague, Czech Republic*

P6	**Computing the symmetries of kk-free lattice systems from imaginary biquadratic number fields** **M.L. Loyola**, K.A.C. de los Santos, E.D. Miro *Department of Mathematics, Ateneo de Manila University, Quezon City, Philippines*
P7	**Numerical Methods for Quasiperiodic Systems and their Applications in Schrödinger Operators** **Q. Zhou**, K. Jiang *Mathematics and Computational Science, Xiangtan University, Xiangtan, Hunan, China*
P8	**On the Spectrum of the Random Fibonacci Direct Product Variation** **J.R.R. Mijares**, E.D. Miro, L.S. Silvestre *Department of Mathematics, Ateneo de Manila University, Quezon City, Philippines*
P9	**Symmetries of a Symbolic Dynamical System Arising from a Biquadratic Number Field** **K. de los Santos**, M. Loyola, E. Miro *Department of Mathematics, Ateneo de Manila University, Quezon City, Philippines*
P10	**Tiles from projections of the root and weight lattices of A_n** **N. Ozdes Koca**[1], M. Koca[2], Rehab Ahmed Nasser Al Reasi[1] *1-Department of Physics, Sultan Qaboos University, Al Khoud, Muscat, Oman* *2- Professor Emeritus, Department of Physics, Sultan Qaboos University, Al Khoud 123, Muscat, Oman*
P11	**Theoretical studies of an artificial spin ice on the Ammann-Beenker tiling** **E. Weightman**, L. O'Brien, S. Coates *Department of Physics, University of Liverpool, Liverpool, UK*
P12	**Non-ergodic states in icosahedral quasicrystals Zn-Mg-*RE*(*RE*= Tm, Er, Ho)** **S. Vrtnik**[1,2], P. Koželj[1,2], A. Jelen[1], J. Luzar[1], J. Petrović[1], I. Buganski[3], R. Strzałka[3], J. Dolinšek[1,2] *1-J. Stefan Institute, Jamova 39, Ljubljana, Slovenia* *2-University of Ljubljana, Faculty of Mathematics and Physics, Ljubljana, Slovenia* *3-AGH University of Science and Technology, Faculty of Physics and Applied Computer Science, Krakow, Poland*
P13	**Single electrons on the Fibonacci quasicrystal: an interpolation between models** **A.M. Rucklidge**[2], R. Lifshitz[1], J. Niesen[2] *1-School of Physics & Astronomy, Tel Aviv University, Tel Aviv, Israel* *2-School of Mathematics, University of Leeds, Leeds, United Kingdom*

P14	**Synthesis and thermoelectric properties evaluation of Al-Ge-Ru 1/0 approximant crystals** **Y. Niwa**[1], Y. Iwasaki[2], K. Kitahara[3], T. D. Yamamoto[1], A. Ishikawa[4], K. Kimura[5], R. Tamura[1] *1-Dept. of Mater. Sci. & Tech. Tokyo Univ. of Sci., Tokyo, Japan* *2-NIMS, Tsukuba, Japan* *3-NDA, Yokosuka, Japan* *4 -Res. Inst. for Sci. & Tech. Tokyo Univ. of Sci., Tokyo, Japan* *5-ISM, Tachikawa, Japan*
P15	**Physical properties of supersilent high-entropy alloys** **J. Luzar**[1], S. Vrtnik[1,2], P. Koželj[1,2], J. Petrović[1], A. Jelen[1], P. Priputen[3], J. Dolinšek[1,2] *1-Jožef Stefan Institute, Ljubljana, Slovenia* *2-University of Ljubljana, Faculty of Mathematics and Physics, Ljubljana, Slovenia* *3-Slovak University of Technology, Faculty of Materials Science and Technology, Bratislava, Slovak Republic*
P16	**A Julia Software Suite for Crystallography in Arbitrary Dimensions** **P. Kalugin** *Laboratoire de Physique des Solildes - UMR 8502, CNRS, Université Paris-Saclay, Orsay, France*
P17	**Synthesis and structure analysis of ZnMgEr P-type quasicrystal** **R. Strzałka**[1], I Bugański[1], J. Wolny[1], J. Kusz[2], N. Fujita[3] *1-AGH University of Krakow, Faculty of Physics and Applied Computer Science, Krakow, Poland* *2-University of Silesia, Faculty of Science and Technology, Katowice, Poland* *3-Tohoku University, Institute of Multidisciplinary Research for Advanced Materials, Sendai, Japan*
P18	**Vertex environments in the extended canonical cell tiling** **N. Fujjita** *Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan*
P19	**Pd-doped $Al_{13}Fe_4$ as an efficient catalyst for the semihydrogenation reaction of acetylene** **N. Fujita**[1], M. Hanaoka[1], E. Gaudry[2], K. Nozawa[3], S. Kameoka[1] *1-Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan* *2- Institut Jean Lamour, Université de Lorraine, UMR7198-CNRS, Campus ARTEM, Nancy, France* *3-Department of Physics and Astronomy, Kagoshima University, Korimoto, Kagoshima, Japan*
P20	**Structural investigation of the Ho-Au-Si (100) approximant surface** **W. Bajoun Mbajoun**[1], G. H. Gebresenbut[2], E. Gaudry[1], C. Pay Gómez[2], J. Ghanbaja[1], V. Fournée[1], J. Ledieu[1] *1-Institut Jean Lamour, Université de Lorraine, UMR7198-CNRS, Campus ARTEM, Nancy, France* *2-Uppsala University, Ångström Laboratory, Uppsala, Sweden*
P21	**Surface structure of Nd-Fe-B permanent magnets.** **A. Suresh**, W. Bajoun Mbajoun, G. Lengaigne, J. Ledieu, V. Fournée *Institut Jean Lamour, Université de Lorraine, UMR7198-CNRS, Campus ARTEM, Nancy, France*

OUR PARTNERS

OUR SPONSORS

CONTACT US

+ 33 (0)3 72 74 37 14

events@ul-propuls.fr

1 rue Grandville 54000
Nancy, France

For more information about the congress:
https://icq16-conference.com/