SCES 2025

Hôtel Bonaventure, Montréal
July 6-11, 2025

INTERNATIONAL CONFERENCE ON STRONGLY CORRELATED ELECTRON SYSTEMS

sces2025.org

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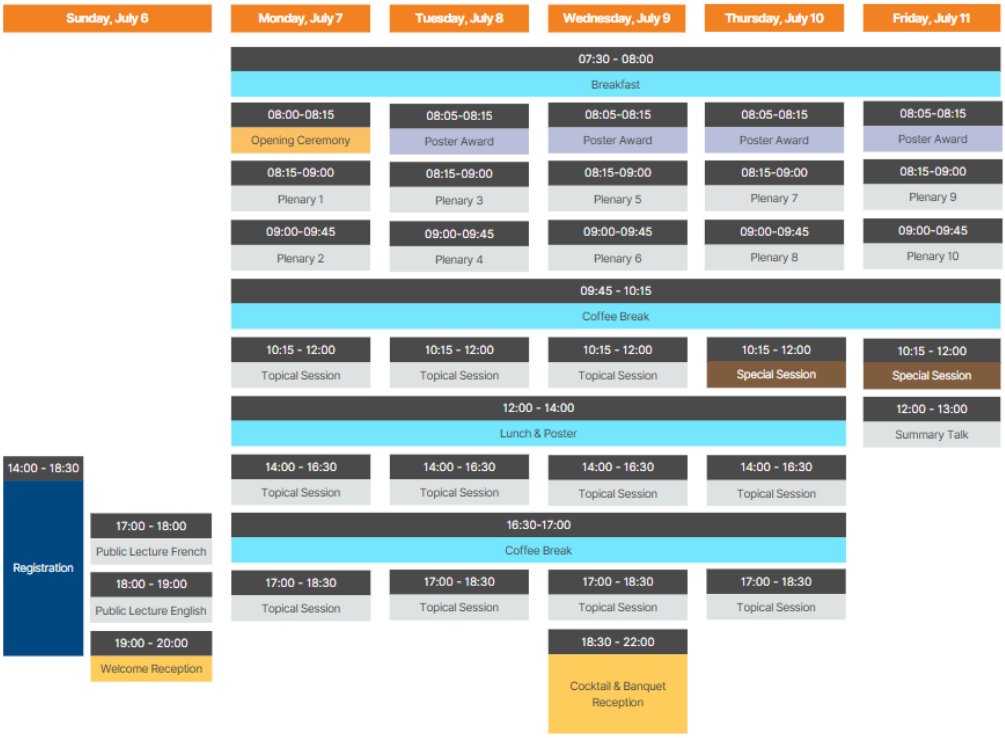
SCES 2025 - Secretariat
sces2025@agora.events

PROGRAM AT A GLANCE



WELCOME MESSAGE

Dear friends and colleagues,

We extend our warmest welcome to you as we kick off the International Conference on Strongly Correlated Electron Systems 2025 (SCES 2025), held in Montréal, Canada, from July 6-11, 2025. The SCES 2025 is an ideal platform where we can freely share and discuss the current status and future directions of scientific and technological achievements in strongly correlated electron systems. Your presence here is highly appreciated, and we are thrilled to have you join us for what promises to be an inspiring and informative event.

In the SCES 2025, we will cover wide-ranging subjects of our field: first and foremost, heavy fermion and the related fields, oxide physics, topological physics, and spin-orbit physics, to name only a few. We will also explore the fast-emerging area of quantum materials and the vast potential they may come to offer.

Montreal is a thriving multicultural city of 1.9 million inhabitants. It is one of the important cities on the North-East American continent and the industrial and cultural center of the province of Québec. It has a rich touristic offering and it hosts four world class Universities.

The SCES 2025 in Montréal, Canada will provide a venue for intellectual and enlightening discussions of ideas. We anticipate your kind participation and contributions to continuously strengthen the long and proud tradition of the international, scientific, and multidisciplinary community of SCES.

The local, program and advisory committees are working to prepare an exciting and outstanding conference.

We look forward to welcome you for your next conference in the beautiful city of Montréal!

The Organizing Committee

MESSAGE DE BIENVENUE

Chers amis et collègues,

C'est avec nos plus chaleureuses salutations que nous vous accueillons à l'occasion de la Conférence internationale Strongly Correlated Electron Systems 2025 (SCES 2025), qui se tient à Montréal, Canada, du 6 au 11 juillet 2025. La conférence SCES 2025 constitue une plateforme idéale pour échanger librement et discuter de l'état actuel ainsi que des perspectives d'avenir des réalisations scientifiques et technologiques dans le domaine des systèmes électroniques fortement corrélés. Votre présence est très appréciée, et nous sommes ravis de vous compter parmi nous pour ce qui s'annonce comme un événement inspirant et enrichissant.

Au cours de la conférence SCES 2025, nous couvrirons un large éventail de sujets dans notre domaine : tout d'abord, les fermions lourds et les domaines connexes, la physique des oxydes, la physique topologique et la physique spin-orbite, pour n'en citer que quelques-uns. Nous explorerons également le domaine émergent des matériaux quantiques et le vaste potentiel qu'ils peuvent offrir.

Montréal est une ville multiculturelle prospère de 1,9 million d'habitants. C'est l'une des villes les plus importantes du nord-est américain et le centre industriel et culturel de la province de Québec. Elle dispose d'une riche offre touristique et accueille quatre universités de classe mondiale.

La conférence SCES 2025 à Montréal, Canada, sera l'occasion de débats d'idées intellectuels et instructifs. Nous comptons sur votre aimable participation et vos contributions pour continuer de renforcer la longue et fière tradition de la communauté internationale, scientifique et multidisciplinaire de SCES.

Le comité local, le comité scientifique et le comité consultatif travaillent à la préparation d'une conférence passionnante et exceptionnelle.

Nous nous réjouissons de vous accueillir pour votre prochaine conférence dans la belle ville de Montréal!

Le comité organisateur

Institut Courtois
Faculté des arts et des sciences

Université de Montréal

Accelerating the discovery of materials through interdisciplinary research in fundamental sciences and artificial intelligence

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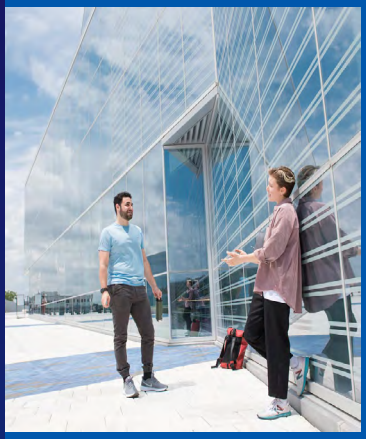

Deadline to Apply:
September 23nd 2025
https://institut-courtois.umontreal.ca/

ORGANIZING COMMITTEE
COMITÉ ORGANISATEUR

Maia Vergniory

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Andrea Bianchi

Conference Co-Chair - Co-Président de la conférence

Cris Adriano

Chair of local Organizing committee - Présidente du comité organisateur local

Stephen Julian

Program committee chair - Présidente du comité de programmation

Priscila Rosa

Program committee chair - Présidente du comité de programmation

PUBLIC LECTURE IN FRENCH
LECTURE PUBLIQUE EN FRANÇAIS

Pr William Witczak-Krempa

Département de physique, Université de Montréal, et Chaire de l'Institut Courtois

Sunday, July 6 - Dimanche 6 juillet 2025 ; 17:00-18:00
Montreal 4-5 Room - Salle Montréal 4-5

Quand la matière s'intrique !

À l'échelle atomique, les particules partagent de l'information de manière non locale grâce à l'intrication quantique. Ainsi, un véritable réseau quantique se forme dans la matière, et gagne en ampleur à basse température. La communauté scientifique commence à dévoiler la riche structure du réseau d'intrication dans les matériaux. Nous verrons comment de nouvelles phases quantiques naissent d'une intrication adroitement tissée. Les efforts expérimentaux visant à dévoiler et manipuler ce réseau seront présentés.

PUBLIC LECTURE IN ENGLISH
LECTURE PUBLIQUE EN ANGLAIS

Prof. Piers Coleman

Center for Materials Theory, Department of Physics and Astronomy, Rutgers University, and Department of Physics, Royal Holloway, University of London.

Sunday, July 6 - Dimanche 6 juillet 2025 ; 18:00-19:00
Montreal 4-5 Room - Salle Montréal 4-5

The strange new universe of quantum materials – Report from the half-time show of quantum mechanics.

A hundred years ago a twenty three year old student called Heisenberg took a summer vacation on the North Sea island of Heligoland to get over his wretched hay fever, and he came back with insights that shook the world of science to its core, leading to the quantum revolution. Answers to age-old questions such as why hot things change color, why matter is hard, what is electricity, how does the sun keep shining - became clear and this opened a new era of science and technology. Today, this revolution is not over: we're only at the half-time show.
In my talk I'll tell you about the quantum revolution, how it was a hundred years ago, and how physicists are gathering this week in Montreal to discuss a new range of quantum problems: a strange quantum universe we find in the lab: strange metals, new kinds of insulators and strange materials that not only conduct electricity without resistance, but can do so at high temperatures. I'll give you a hint of why we're so excited, and our hopes for this new quantum universe.

PLENARY SPEAKERS
CONFÉRENCIERS DE PLÉNIÈRE

Cristian Batista, University of Tennessee, Knoxville, TN, USA

I work in theoretical physics with emphasis in strongly interacting electron systems. My research tools combine analytical methods with numerical techniques for describing static and dynamical properties of many-body systems. I am particularly interested in the novel states of matter that are realized in frustrated quantum materials. Quantum magnetism offers the simplest playground (purely bosonic systems) to study the multiplicity of exotic quantum states matter, ranging from multipolar orderings to spin liquids, that can emerge at low energies out of very simple competing interactions. I believe frustration is also a guiding principle for finding novel quantum states of matter in itinerant systems (metals), such unconventional superconductivity. For this reason, we are currently study the role of frustration in strongly correlated metals.

Andrea Damascelli, University of British Columbia, BC, Canada

Our group develops and utilizes angle-resolved photoemission spectroscopy (ARPES) and its time- and spin- resolved variants, as well as resonant x-ray scattering (RXS), to push the limits of these techniques and gain a deeper understanding of quantum materials and new phases of matter. Leveraging facilities established at Blusson QMI in the UBC-Moore Centre for Ultrafast Quantum Matter and the Quantum Materials Spectroscopy Centre at the Canadian Light Source, we pursue the engineering of the electronic structures of these materials through in situ adatom deposition, strain, and the optical coherent control of electronic states via pulsed laser excitations.

Marcel Franz, University of British Columbia

Marcel Franz is a professor in the Department of Physics & Astronomy of the University of British Columbia. His research interests are in theoretical condensed matter physics and statistical mechanics, most recently focusing on problems in topological states of quantum matter. Previously, and more generally, he made contributions to the theory of high temperature superconductivity, graphene, and various exotic phases of correlated electrons.

Elena Hassinger, Max Planck Institute for Chemical Physics of Solids, Dresden Germany

Elena received her physics diploma at the university of Heidelberg in 2007. She then did her PhD between 2007 and 2010 in the group by Jacques Flouquet in CEA Grenoble, France, on high pressure studies of competing phases in uranium heavy fermion systems. Afterwards she moved to Sherbrooke in Quebec, Canada, for a postdoc in Louis Taillefer's group. As a Cifar Global Scholar and FQRNT postdoc fellow she worked on superconductivity in iron pnictides and Sr2RuO4. In 2014 she was awarded an independent Max-Planck research group leader position by the Max Planck Society. She built up and leads the group "Physics of Unconventional Metals and Superconductors" at the MPI for Chemical Physics of Solids in Dresden, Germany.

Tomáš Jungwirth, Czech Academy of Sciences

Born in Prague, Czech Republic, Tomas Jungwirth received his Ph.D. degree in condensed matter physics from the Charles University in Prague in 1997. The Ph.D. thesis work on quantum Hall effect phenomena in semiconductors was performed partly in the Institute of Physics ASCR in Prague and partly at the Indiana University, USA. Subsequently he worked as a NATO Postdoctoral Fellow at the Indiana University and a Research Fellow and Adjunct Professor at the University of Texas, USA. In 2004 Tomas Jungwirth was appointed a Professor-Chair at the University of Nottingham, UK and in 2007 a Head of the Department of Spintronics and Nanoelectronics of the Institute of Physics ASCR in Prague.

The fields of expertise of Tomas Jungwirth are condensed matter physics, materials science, electronic properties of nanostructures, quantum Hall effects, magnetic, magneto-transport and magneto-optical properties of ferromagnetic semiconductors, quantum-relativistic spin-orbit coupling phenomena including anisotropic magnetoresistace, anomalous and spin Hall effects, and non-magnetic, ferromagnetic, and antiferromagnetic spintronic devices.

Eun-Ah Kim, Cornell University, Ithaca, NY, USA

My research interests lie in the theoretical study of the collective phenomena condensed matter systems exhibit, and in understanding how such phenomena emerges from microscopic physics. Especially, I have been interested in the physics of strongly correlated systems: systems consisting of many strongly interacting degrees of freedom. Strong correlations can lead to a surprisingly rich diversity of novel phenomena that are highly non-trivial from a single particle perspective. Over the last few decades, new experimental discoveries, through the development of new experimental probes and the fabrication of ever more exotic materials and devices, have been raising unexpected and conceptually deep questions. The possibility of obtaining a non-trivial understanding through a close interaction and synergy with experimental colleagues make the theoretical study of this field exciting and rich.

Julia A Mundy, Harvard University

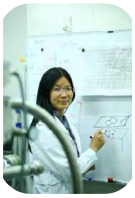
Julia Mundy is an experimental condensed matter physicist. Her research combines thin film deposition with advanced characterization techniques to design, synthesize and probe novel quantum materials at the atomic-scale.

Subir Sachdev, Harvard University

Subir Sachdev's research describes the consequences of quantum entanglement on the macroscopic properties of natural systems. He has made extensive contributions to the description of the diverse varieties of states of quantum matter, and of their behavior near quantum phase transitions. Many of these contributions have been linked to experiments, especially to the rich phase diagrams of the copper-oxide high temperature superconductors. Sachdev's research has also exposed remarkable connections between the nature of multi-particle quantum entanglement in certain laboratory materials, and the quantum entanglement in astrophysical black holes, and these connections have led to new insights on the entropy and radiation of black holes proposed.

Hidenori Takagi, Max Planck Institute for Solid State Research

Hidenori Takagi, born March 20 1961 in Tokyo, is a Director and Scientific Member of the Max Planck Institute for Solid State Research in Stuttgart, and a Professor of Physics at the University of Tokyo. He studied Applied Physics at the University of Tokyo, where he received his PhD in 1989. After joining AT&T Bell Laboratories as a Post-Doctoral member of technical staff in 1990, he returned to the University of Tokyo, becoming an Associate Professor in 1994 and a Professor in 1999. In 2002, he was jointly appointed at RIKEN, Japan as a Chief Scientist and Group Director. In 2013, he became a Director of the Max Planck Institute for Solid State Research. His research interests include the metal-insulator transition, superconductivity, and quantum magnetism in correlated transition metal oxides. He received the IBM science prize (1988), Nissan science prize (1994), K. H. Onnes prize (2006), Honda Frontier Award (2009), and is a Fellow of the American Physical Society. In 2013 he was appointed Alexander von Humboldt Professor.



Shuyun Zhou, Tsinghua University

Shuyun Zhou is a Chinese physicist and a tenured professor of physics at Tsinghua University. She is the distinguished Professor of the 2017 “Cheung Kong Scholars” of the Ministry of Education of the People’s Republic of China, and won the 13th “China Young Women Scientists Award”.

GENERAL INFORMATION

VENUE

Hotel Bonaventure
900 Rue De la Gauchetière O, Montréal, QC H5A 1E4

PARKING

Hotel Bonaventure has a large underground parking lot shared with Place Bonaventure. Accessible via Mansfield Street, the indoor parking extends over 6 floors and has a total of 750 spaces.

REGISTRATION DESK

All participants should register at the registration desk to collect conference material. The registration desk is located down stair on the Meeting floor and it will be open at the following times:

Sunday, July 6	14:00-18:30
Monday, July 7	07:00-18:30
Tuesday, July 8	07:00-18:30
Wednesday, July 9	07:00-18:30
Thursday, July 10	07:00-18:30
Friday, July 11	07:00-12:00

EXHIBITION HALL

Room St Laurent

Monday, July 7	09:45-18:30
Tuesday, July 8	09:45-18:30
Wednesday, July 9	09:45-18:30
Thursday, July 10	09:45-17:00

LUNCHES AND COFFEE BREAKS

Room St Laurent
Lunches and coffee breaks are located in the exhibition hall.

INTERNET ACCESS / MOBILE PHONE

Free internet facilities are available to all participants in the conference venue.

Network : Strongly Correlated Electron Systems

Password : SCES2025

During the sessions, please turn off your mobile phone or set it to mute.

NAME BADGE

Name badge is the participant identification to access the sessions and exhibition and should be worn for all the conference and social events.

CERTIFICATE OF ATTENDANCE

An official Certificate of Attendance will be available on demand after the conference.

DISCLAIMER

The SCES 2025 secretariat and organizers cannot assume liability for personal accidents, loss of or damage to private property of participants and accompanying persons, either during, or directly arising from the SCES 2025. Participants should make their own arrangements with respect to health and travel insurance.

SECURITY & SAFETY

Please do not leave bags and luggage unattended at any time, whether inside or outside session rooms.

RENSEIGNEMENTS GÉNÉRAUX

LIEU

Hotel Bonaventure
900 Rue De la Gauchetière O,
Montréal, QC H5A 1E4

STATIONNEMENT

L'Hôtel Bonaventure dispose d'un vaste stationnement souterrain partagé avec la Place Bonaventure. Accessible par la rue Mansfield, le stationnement intérieur s'étend sur 6 étages, et compte un total de 750 places.

COMPTOIR D'INSCRIPTION

Tous les participants doivent s'inscrire au comptoir d'inscription et récupérer le matériel de la conférence. Le comptoir d'inscription est situé au sous-sol à l'étage des salles de réunion et il sera ouvert aux heures suivantes:

Dimanche le 6 juillet	14:00-18:30
Lundi le 7 juillet	07:00-18:30
Mardi le 8 juillet	07:00-18:30
Mercredi le 9 juillet	07:00-18:30
Jeudi le 10 juillet	07:00-18:30
Vendredi le 11 juillet	07:00-12:00

EXHIBITION HALL

Salle St Laurent

Lundi le 7 juillet	09:45-18:30
Mardi le 8 juillet	09:45-18:30
Mercredi le 9 juillet	09:45-18:30
Jeudi le 10 juillet	09:45-17:00

REPAS ET PAUSES-CAFÉ

Salle St Laurent
Les repas et les pauses-café se trouvent dans la salle d'exposition.

ACCÈS INTERNET ET CELLULAIRE

Un accès internet gratuit est disponible pour tous les participants sur le lieu de la conférence.

Réseau :

Strongly Correlated Electron Systems

Mot de passe : SCES2025

Pendant les sessions, veuillez éteindre votre téléphone portable ou le mettre en sourdine.

PORTE-NOM

Le porte-nom est l'identification du participant pour accéder aux sessions et à l'exposition et doit être porté pour toute la conférence et les événements sociaux.

CERTIFICAT DE PARTICIPATION

Un certificat officiel de participation sera fourni sur demande, dans les deux semaines après la conférence.

ASSURANCE

Le secrétariat et les organisateurs du SCES 2025 ne peuvent être tenus responsables des accidents personnels, de la perte ou des dommages causés à la propriété privée des participants et des personnes accompagnatrices, que ce soit pendant SCES 2025 ou directement à la suite de celui-ci. Les participants doivent prendre leurs propres dispositions en ce qui concerne l'assurance maladie et l'assurance voyage.

SÉCURITÉ

Veuillez ne pas laisser vos sacs et bagages sans surveillance à tout moment, que ce soit à l'intérieur ou à l'extérieur des salles de session.

SOCIAL EVENTS
ACTIVITÉS SOCIALES

GUIDED WALKING TOUR - TOUR DE VILLE GUIDÉ

Sunday, July 6 - Dimanche 6 juillet 2025, 14:30-16:00
Departure - Départ : Hotel Bonaventure
Return - Retour : Hotel Bonaventure

Duration - Durée : 1.5-hour

Price - Prix : 26$

Accompanied by a professional guide, explore the facets of Montreal's dynamic downtown and briefly immerse yourself in the atmosphere of Old Montreal.
Accompagné d'un guide professionnel, explorez les facettes du dynamique centre-ville de Montréal et plongez brièvement dans l'atmosphère du Vieux-Montréal.

WELCOME RECEPTION - RÉCEPTION DE BIENVENUE

Sunday, July 6 - Dimanche 6 juillet 2025, 19:00-21:00
Ville Marie, Room / Salle Ville Marie

Drinks & appetizers

Boissons & bouchées

COCKTAIL & BANQUET

Wednesday, July 9, 2025 - Mercredi 9 juillet 2025, 18:30-22:00
Montreal 4-5, Room / Salle Montreal 4-5

Drinks, appetizers and dinner (only with prior reservation).
Boissons, bouchées et repas (sous réservation à l'avance seulement).

THANK YOU TO OUR PARTNERS !
MERCI À NOS PARTENAIRES

The Organizing Committee of the SCES 2025 Conference would like to express its gratitude to and acknowledge the following partners for their generous support:

Le comité organisateur de la Conférence SCES 2025 aimerait exprimer sa gratitude et sa reconnaissance envers les partenaires suivants pour leur généreux soutien :

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Crystal Systems Corporation is a global leader in four-mirror optical floating-zone furnace technology, holding the top share worldwide. Our unique design achieves a uniform horizontal temperature distribution, enabling the growth of high-quality single crystals. By utilizing glass mirrors and a compact optical configuration, we deliver lightweight and cost-effective systems. Our product lineup ranges from standard halogen furnaces to laser and xenon super high-temperature models, supporting research and industrial innovation across the globe.
https://www.crystalsys.co.jp/english/index_e.html

Institut Courtois

The Institut Courtois was established in 2021, thanks to an unprecedented donation of $159 million. Our mission is to foster rich environment of creativity and discovery, by exploring major open questions in materials research, with the goal of generating transformative impacts in these disciplines. The Institute brings together leading researchers in chemistry, physics, computer science, and mathematics, who combine their expertise to leverage recent advances in artificial intelligence (AI) to accelerate the discovery of new materials. Our five research thrusts are:

- Photonic and quantum materials
- Materials for energy and the environment
- Interfaces and molecular materials
- AI & quantum condensed matter physics
- AI in experimental automation and data science

https://institut-courtois.umontreal.ca/

Institut Quantique de l'Université de Sherbrooke

Créé en 2016, l'Institut quantique (IQ) de l'Université de Sherbrooke regroupe plus de 300 spécialistes en matériaux, information et ingénierie quantiques. Installé dans un pavillon signature, l'IQ favorise les échanges et l'innovation. Ses chercheuses et chercheurs se distinguent par des découvertes reconnues mondialement et adoptées par l'industrie. L'IQ mise sur un environnement dynamique centré sur la communauté étudiante, encourageant les projets initiés par celle-ci. Ses personnes diplômées contribuent à l'avancement scientifique dans divers secteurs. L'IQ joue un rôle clé dans le développement d'un écosystème quantique de calibre mondial à Sherbrooke et au Québec.
https://www.usherbrooke.ca/iq/fr/

McGill

McGill university is home to the Centre for the Physics of Materials (CPM) which is a research center supported by provincial and university funding. It includes 27 research groups from physics, chemistry and engineering. The CPM researchers study all aspects of materials with a variety of state of the art tools. Many of our researchers are interested in strongly interacting quantum systems and we are therefore proud to endorse the SCES2025 conference. To learn more about the CPM check out our website: https://cpm.research.mcgill.ca

Quantum Design

Quantum Design was established in 1982 and is a leading manufacturer of automated cryostats and materials characterization systems. These systems (OptiCool, PPMS, MPMS3 VersaLab) offer a variety of measurement capabilities at liquid helium and sub-kelvin temperatures. Quantum Design recently released the FusionScope correlative microscopy platform, designed from the ground up to add the benefits of SEM imaging and EDS elemental analysis to a wide range of AFM measurement techniques. Quantum Design's instruments are cited in, and provide the data for, more scientific publications than any other instrument in the fields of magnetics and materials characterization. Please visit with Quantum Design during the SCES 2025 conference. https://qdusa.com/

Regroupement Québécois sur les Matériaux de Pointe

Le RQMP est un regroupement stratégique du Fonds de Recherche du Québec, secteur Nature et Technologies. Il rassemble 80 équipes de recherche sur les matériaux, réparties dans trois universités : Montréal, Polytechnique, McGill et Sherbrooke. Les chercheur.ses travaillent sur les matériaux de pointe pour les technologies de l'information, de la santé, de l'énergie et des transports. Les membres du RQMP sont unis par leur approche en synthèse, fabrication, caractérisation et calcul numérique. Ces méthodes complémentaires permettent des avancées dans les panneaux solaires, les batteries, les matériaux topologiques, les détecteurs de molécules cancéreuses, les microstructures, ou encore les couches minces.
https://rqmp.ca/

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https://taylorandfrancis.com

University of British Columbia

The University of British Columbia is a global centre for teaching, learning and research, consistently ranked among the top public universities in the world as one of the major research universities in Canada. Hosting 70,898 students across our Vancouver and Okanagan campuses, UBC is home to cultural, research and industry facilities including the UBC Museum of Anthropology and First Nations Longhouse, the Sauder School of Business, TRIUMF Canada's particle accelerator, the Quantum Matter Institute, Bamfield Marine Biological Station, UBC Faculty of Medicine, the Centre for Digital Media, the Asia Pacific Regional Office , based in Hong Kong, and the Chan Centre for the Performing Arts.
https://phas.ubc.ca/

ORAL PRESENTATIONS - PRÉSENTATION ORALES

Sunday, July 6, 2025

PUBLIC LECTURE FRENCH

ROOM: MONTREAL 4-5

17:00 - 18:00 QUAND LA MATIÈRE S'INTRIQUE!
Pr William Witczak-Krempa, Département de physique, Université de Montréal, et Chaire de l'Institut Courtois

PUBLIC LECTURE ENGLISH

ROOM: MONTREAL 4-5

18:00 - 19:00 THE STRANGE NEW UNIVERSE OF QUANTUM MATERIALS - REPORT FROM THE HALF-TIME SHOW OF QUANTUM MECHANICS
Prof. Piers Coleman, Center for Materials Theory, Department of Physics and Astronomy, Rutgers University, and Department of Physics, Royal Holloway, University of London.

Monday, July 7, 2025

PLENARY SESSION

ROOM: MONTREAL 4-5

Chair: Coleman, Piers

08:15 - 09:00 FL* THEORY OF THE PSEUDOGAP, D-WAVE SUPERCONDUCTIVITY, AND CHARGE ORDER IN THE CUPRATES
Subir Sachdev, Harvard University, United States of America
Subir Sachdev

09:00 - 09:45 MYSTERIES OF THE TWO-PHASE SUPERCONDUCTOR CERH2AS2
Elena Hassinger, Dresden University of Technology, Germany
Elena Hassinger

BERNARD COQBLIN PRIZE

Prize winner : Kalobaran Maiti

ROOM: MONTREAL 4-5

Chair: Aronson, Meigan

10:15 - 10:30 PRESENTATION TO WINNERS OF THE BERNARD COQBLIN, BRYAN R COLES AND NEVILL MOTT PRIZES.

10:30 - 11:00 ELECTRON CORRELATIONS IN TOPOLOGICAL MATERALS, KALOBARAN MAITI, INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE, INDIA. WINNER OF THE BERNARD COQBLIN PRIZE.
Kalobaran Maiti, Indian Association for the Cultivation of Science, India
Kalobaran Maiti

TS1 FOCUS SESSION: NEW INSIGHTS INTO THE SUPERCONDUCTING STATE OF UTE2

ROOM: MONTREAL 4-5

Chair: Aoki, Dai

11:00 - 11:30 KEY ISSUES IN UNDERSTANDING THE SUPERCONDUCTIVITY OF UTE2
Johnpierre Paglione, University of Maryland, United States of America
Johnpierre Paglione

11:30 - 11:45 EXPLORING POINT NODES ALONG THE B-AXIS IN UTE2 BY THERMAL CONDUCTIVITY
Suguru Hosoi, Los Alamos National Laboratory, United States of America
Suguru Hosoi, Kumpei Imamura, Yuji Matsuda, Mitchell Bordelon, Joe Thompson, Eric Bauer, Sean Thomas, Filip Ronning, Roman Movshovich, Priscila F. S. Rosa

11:45 - 12:00 ELECTRONIC AND MAGNETIC STRUCTURES OF UTE2 UNDER PRESSURE
Makoto Shimizu, Department of Physics, Graduate School of Science, Kyoto University, Japan
Makoto Shimizu, Youichi Yanase

TS2 RECENT ELECTRICAL TRANSPORT RESULTS IN CUPRATES

ROOM: MONTREAL 1-2

Chair: Grissonnanche, Gael

11:00 - 11:30 EVIDENCE FOR SPIN-FLUCTUATION-MEDIATED SUPERCONDUCTIVITY IN ELECTRON-DOPED CUPRATES
Caitlin Duffy, Laboratoire National des Champs MagnÈtiques Intenses, France
Caitlin Duffy, Sijia Tu, Qihong Chen, Jinsong Zhang, Alessandro Cuoghi, Roemer Hinlopen, Tarapada Sarkar, Richard Greene, Kui Jin, Nigel Hussey

11:30 - 11:45 UNCONVENTIONAL OUT-OF-PLANE TRANSPORT IN TL2201 MICROSTRUCTURES

Ayanesh Maiti, Max Planck Institute for Chemical Physics of Solids, Germany
Ayanesh Maiti, Seunghyun Khim, Andrew Mackenzie, Philip Moll, Carsten Putzke

11:45 - 12:00 PSEUDOGAP DETECTION IN POLYCRYSTALLINE YPRBCO
Oscar Bernal, California State University, United States of America
Oscar Bernal, Francisco Canales, Christopher Orosco, Armond Khodagulyan, Benjamin Begay, Benjamin Saack, John Wei, Chao Zhang

TS3 HUND'S INTERACTIONS AND NEMATICITY IN SUPERCONDUCTORS

ROOM: MONTREAL 3

Chair: Miranda, Eduardo

11:00 - 11:30 HUND'S-DRIVEN CORRELATIONS IN UNCONVENTIONAL SUPERCONDUCTORS
Laura Fanfarillo, Institute of Complex System ISC-CNR, Italy
Laura Fanfarillo

11:30 - 11:45 TWO-COMPONENT NEMATIC SUPERCONDUCTIVITY IN 4HB-TAS2
Yoram Dagan, Tel Aviv University, Israel
Yoram Dagan

11:45 - 12:00 EVOLUTION OF ELECTRONIC NEMATIC PHASES IN STRIPE-ORDERED CUPRATE SUPERCONDUCTORS
Naman Gupta, University of Waterloo, Canada
Naman Gupta

TS4 FERROMAGNETIC QUANTUM CRITICALITY

ROOM: MONTREAL 6-7

Chair: Custers, Jeroen

11:00 - 11:30 INTERPLAY OF FERROMAGNETISM WITH QUANTUM CRITICALITY AND SUPERCONDUCTIVITY IN CE-BASED HEAVY FERMIONS
Michael Smidman, Zhejiang University, China (People's Republic of)
Huiqiu Yuan, Michael Smidman

11:30 - 11:45 MICROSCOPIC INVESTIGATION OF MAGNETISM IN QUANTUM CRITICAL FERROMAGNET CERH6GE4
Riku Yamamoto, University of California, Los Angeles, United States of America
Riku Yamamoto, Sejun Park, Zachary Riedel, Phurba Sherpa, Adam Dioguardi, Joe Thompson, Filip Ronning, Eric Bauer, Michihiro Hirata

11:45 - 12:00 MULTIPOLAR ORDERING FROM DYNAMICAL MEAN-FIELD THEORY AND ITS

APPLICATIONS TO CEB6 AND CERH6GE4

Junya Otsuki, Okayama University, Japan

Junya Otsuki, Shoichiro Itokazu, Akimitsu Kirikoshi, Harald O. Jeschke, Kazuyoshi Yoshimi, Hiroshi Shinaoka

TS5 FOCUS SESSION: PROBING UTE2 IN MAGNETIC FIELDS

ROOM: MONTREAL 4-5

Chair: Paglione, Johnpierre

14:00 - 14:30 HIGH MAGNETIC FIELD QUANTUM CRITICALITY IN UTE2

Alex Eaton, University of Cambridge, United Kingdom

Alex Eaton

14:30 - 14:45 ENHANCED ELECTRONIC CORRELATIONS IN UTE2 NEAR MAGNETIC FIELD-INDUCED SUPERCONDUCTIVITY BEYOND 40 T.

Tristan Thebault, Karlsruhe Institut of Technology, Germany

Tristan Thebault, Somesh Kalaiarasan, Gerard Lapertot, Marc Nardone, Abdelaziz Zitouni, Mathieu Barragan, Dai Aoki, Georg Knebel, Daniel Braithwaite, William Knafo

14:45 - 15:15 MULTIPLE SUPERCONDUCTIVITY IN UTE2 UNDER EXTREME CONDITIONS

Georg Knebel, Univ. Grenoble Alpes, CEA, Grenoble INP, Pheliqs, France

Georg Knebel, Nils Marquardt, Timothee Vasina, Atsushi Miyake, Gabriel Seyfarth, Ilya Sheikin, William Knafo, Stephane Raymond, Alexandre Pourret, Christophe Marcenat, Midori Amano Patino, Gerard Lapertot, Jacques Flouquet, Jean-Pascal Brison, Daniel Braithwaite, Dai Aoki

15:15 - 15:30 SPIN DEGREES OF FREEDOM IN SPIN-TRIPLET SUPERCONDUCTOR UTE2

Kenji Ishida, Kyoto University, Japan

Kenji Ishida, Hiroki Matsumura, Riku Matsubayashi, Shunsaku Kitagawa, Yo Tokunaga, Hironori Sakai, Dai Aoki

15:30 - 16:00 EMERGENCE OF SUPERCONDUCTIVITY IN UTE2 FROM A PARTIALLY FORMED HEAVY-ELECTRON STATE

Jeff Sonier, Simon Fraser University, Canada

Jeff Sonier, Sarah Dunsiger, Joe Thompson, Sean Thomas, Priscila F. S. Rosa

16:00 - 16:15 MICROWAVE ELECTRODYNAMICS AND LOW-ENERGY EXCITATIONS OF SUPERCONDUCTING UTE_2

Steven Anlage, University of Maryland, United States of America

Steven Anlage, Arthur Carlton-Jones

16:15 - 16:30 MULTIPLE SUPERCONDUCTING PHASES AND FERMI SURFACES IN SPIN-TRIPLET SUPERCONDUCTOR UTE2

Dai Aoki, IMR, Tohoku University, Japan

Dai Aoki

TS6 TUNABLE TRANSITIONS IN SCES: FROM METAL-INSULATOR TO VALENCE TRANSITIONS

ROOM: MONTREAL 1-2

Chair: Damascelli, Andrea

14:00 - 14:15 NITROGEN VACANCY MAGNETOMETRY OF THE LOCAL INSULATOR TO METAL TRANSITION IN CALCIUM RUTHINATE

Hayden Binger, Max Planck Institute for the Chemical Physics of Solids, Germany

Hayden Binger, Cissy Suen, Elina Zhakina, Luke Turnbull, Yejin Lee, Young-Gwan Choi, Yuchen Zhao, Lotte Boer, Max Krautloher, Berit Goodge, Bernhard Keimer, Claire Donnelly, Uri Vool

14:15 - 14:30 RIXS STUDY OF STRAIN-TUNED COUPLED VALENCE AND SPIN STATE TRANSITION IN (PR0.85Y0.15)0.7CA0.3COO3

Yiu Fung Chiu, University of Oxford, Diamond Light Source, United Kingdom

Yiu Fung Chiu, Stefano Agrestini, Jaewon Choi, Andrew Boothroyd, Ke-Jin Zhou, Jonathan Pelliciari, Shiyu Fan, Valentina Bisogni, Mirian Garcia-Fernandez

14:30 - 14:45 CONTROL OF CALCIUM RUTHENATE COMPOUNDS THROUGH EXTERNAL FIELDS

Cissy Suen, University of British Columba (Quantum Matter Institute), Max Planck Institute for Solid State Research, Canada

Cissy Suen, Martin Bluschke, Joel Bertinshaw, Pascal Reifl, Hlynur Gretarsson, Hsiang-Hsi Kang, Haotan Han, Maximilian Krautloher, Giniyat Khaliullin, Amit Pawbake, Dipanker Jana, ClÈment Faugeras, Eric Ressouche, Andrea Damascelli, Bernhard Keimer

14:45 - 15:00 CURRENT-INDUCED NONEQUILIBRIUM PHASE TRANSITION ACCOMPANIED BY GIANT GAP REDUCTION IN VO2

Akitoshi Nakano, Nagoya University, Japan

Akitoshi Nakano, Masato Imaizumi, Ichiro Terasaki

15:00 - 15:15 SINGLE-SITE DFT+DMFT FOR VANADIUM DIOXIDE USING BOND-CENTERED ORBITALS

Peter Mlkvik, ETH Zurich, Switzerland

Peter Mlkvik, Nicola Spaldin, Claude Ederer

15:15 - 15:30 TOWARD METALLIC CONDUCTIVITY IN PALLADIUM-OXIDE PEROVSKITE

Julian Nickel, University of Toronto, Canada

Julian Nickel, Liam Csiffary, Stephen Julian

15:30 - 15:45 THE CONUNDRUM OF CHARGE AND BOND DISPROPORTIONATION IN BABIO3

Sumit Sarkar, University of Waterloo, Canada

Sumit Sarkar, Priyanka Yadav

15:45 - 16:00 POLARON STABILIZATION IN ANTIFERROMAGNETIC EU5IN2SB6: A THERMAL EXPANSION STUDY

Steffen Wirth, MPI for Chemical Physics of Solids Dresden, Germany

Steffen Wirth, Hubert Dawczak-Debicki, M. Victoria Ale Crivillero, Matthew S. Cook, Sean Thomas, Priscila F. S. Rosa, Jens M¸ller, Ulrich K. Rˆfller, Pedro Schlottmann

16:00 - 16:15 TUNING EU-BASED COMPOUNDS TOWARDS CRITICAL ENDPOINTS

Kristin Kliemt, Goethe Universit‰t Frankfurt, Germany

Kristin Kliemt, Michelle Ocker, Robert Mˆller, Kraiker Alexej, Michael Merz, Christo Guguschev, Cornelius Krellner

16:15 - 16:30 STUDIES OF MAGNETISM AND ITS INTERPLAY WITH CDW ORDER IN SMNIC2

Herwig Michor, Institute of Solid State Physics, TU Wien, Austria

Marta Roman, Jovana Kovacevic, Danny Milosavljevic, Herwig Michor

TS7 FOCUS SESSION: KAGOME METALS - CORRELATIONS, STRANGE METALLICITY, AND MAGNETISM

ROOM: MONTREAL 6-7

Chair: Goh, Swee K.

14:00 - 14:30 HOPPING FRUSTRATION AND STRANGE METALLICITY IN FLAT BAND KAGOME METAL NI3IN

Linda Ye, California Institute of Technology, United States of America

Linda Ye

14:30 - 14:45 CROSSOVER FROM NON-FERMI-LIQUID TO FERMI-LIQUID BEHAVIOR IN THE MN-BASED KAGOME METAL SC3MN3AL7SI5

Yasuyuki Nakajima, University of Central Florida, United States of America

Yasuyuki Nakajima, Charuni Dissanayake, Kapila Kumarasinghe, Mark Tomlinson, Vireshwar Mishra, Khoa Dang Le, Manh-Huong Phan, Qing-ping Ding, Charles Taylor, Yuji Furukawa, Eun Sang Choi

14:45 - 15:00 TUNING THE ELECTRONIC AND MAGNETIC PROPERTIES OF MN3SN THROUGH UNIAXIAL STRAIN AND CR DOPING

Raphael Bonfim de Amorim, UniversitÈ de Sherbrooke, Canada

Raphael Bonfim de Amorim, Avery Boulay, Florence Perreault, Julien Bourque, Matthieu Collet, David Patry, Gustavo Lombardi, Pascoal Pagliuso, Danusa do Carmo, Cris Adriano

15:00 - 15:15 PRESSURE CONTROL OF MAGNETIC FRUSTRATION IN Y-KAPELLASITE

Federico Abbruciati, European Synchrotron Radiation Facility, France

Federico Abbruciati, Pascal Puphal, Aleksandar Razpopov, Roser Valenti, Matthieu Le Tacon, Bjˆrn Wehinger

15:15 - 15:30 TRANSPORT PROPERTIES OF HOAGGE BY USING THE DFT+DMFT METHOD

Akimitsu Kirikoshi, Research Institute for Interdisciplinary Science, Okayama University, Japan

Akimitsu Kirikoshi, Harald O. Jeschke, Junya Otsuki

15:30 - 16:00 ANISOTROPIC NON-FERMI LIQUID AND DYNAMICAL PLANCKIAN SCALING OF A QUASI-KAGOME KONDO LATTICE SYSTEM

Shin-ichi Kimura, The University of Osaka, Japan

Shin-ichi Kimura, Muhammad Lubis, Hiroshi Watanabe, Yasuyuki Shimura, Toshiro Takabatake

16:00 - 16:15 MULTI-STAGE PHASE TRANSITIONS AND NON-RECIPROCAL TRANSIPORT IN KAGOME SUPERCONDUCTORS AV3SB5

Rina Tazai, YITP, Kyoto University, Japan

Rina Tazai, Youichi Yamakawa, Takahiro Morimoto, Hiroshi Kontani

TS8 PROBING KITAEV QUANTUM SPIN LIQUID CANDIDATES

ROOM: MONTREAL 3

Chair: Rau, Jeffrey

14:00 - 14:30 PROBING FRACTIONALIZED EXCITATIONS OF QUANTUM SPIN LIQUIDS WITH SECOND-ORDER TWO-DIMENSIONAL SPECTROSCOPY

Victor Quito, University of S„o Paulo, Brazil

Victor Quito, Yihua Qiang, Thaìs Trevisan, Willian Natori, Eduardo Miranda, Peter Orth

14:30 - 14:45 MICROSCOPIC ROADMAP TO A KITAEV-YAO-LEE SPIN-ORBITAL LIQUID

Hae-Young Kee, University of Toronto, Canada

Hae-Young Kee, Derek Churchill, Emily Zhang

14:45 - 15:00 TRIGONAL DISTORTION IN THE KITAEV CANDIDATE HONEYCOMB MAGNET BACO2(ASO4)2

Miguel Maria Ferreira Carvalho, Max Planck Institute for Chemical Physics of Solids, Germany

Miguel Maria Ferreira Carvalho, Sahana Roessler, Zhiwei Hu, Chun-Fu Chang, Manuel Valvidares, Pierluigi Gargiani, Maurits W. Haverkort, Prashanta Mukharjee, Philipp Gegenwart, Alexander Tsirlin, Liu Hao Tjeng

15:00 - 15:15 EXPLORING ANISOTROPY IN A-RUCL_3 VIA A COMPLETE 360^0 STUDY OF THE MAGNETOTROPIC SUSCEPTIBILITY

Hamza Nasir, Institute of Science and Technology Austria, Austria

Hamza Nasir, Young-June Kim, Brad Ramshaw, Kimberly Modic

15:15 - 15:30 SPIN-STRAIN INTERACTIONS UNDER HYDROSTATIC PRESSURE IN A-RUCL3

Sergei Zherlitsyn, Helmholtz-Zentrum Dresden-Rossendorf, Germany

Sergei Zherlitsyn, Andreas Hauspurg, Susmita Singh, Tatsuya Yanagisawa, Vladimir Tsurkan, Joachim Wosnitza, Wolfram Brenig, Natalia B. Perkins

15:30 - 15:45 ABSENCE OF PREDICTED SIGNATURE OF KITAEV / ISING TOPOLOGICAL ORDER IN MAGNETIC TORQUE AT HIGH FIELD IN ALPHA-RUCL3
Shaun Froude-Powers, University of Toronto, Canada
Shaun Froude-Powers, Subin Kim, Jacob Gordon, Hae-Young Kee, Young-June Kim, Stephen Julian

15:45 - 16:00 OSCILLATIONS OF HEAT CURRENT UNDER A MAGNETIC FIELD IN FRUSTRATED MAGNETS
Haoting Xu, University of Toronto, Canada
Haoting Xu, Antoine Matar, Hae-Young Kee

16:00 - 16:30 PLANAR THERMAL HALL EFFECT FROM PHONONS IN QUANTUM MATERIALS
Emma Campillo, UniversitÈ de Sherbrooke, Canada
Lu Chen, …tienne LefranÁois, Ashvini Vallipuram, LÈna Le Roux, GaÎl Grissonnanche, Marie-Eve Boulanger, Quentin BarthÈlemy, Amirreza Ataei, Steven ThÈriault, Ruixing Liang, Douglas Bonn, Walter N. Hardy, Sunseng Pyon, T. Takayama, Hidenori Takagi, Kejun Xu, Z.-X. Shen, Weiliang Yao, Yuan Li, Louis Taillefer, Emma Campillo

TS9 EXOTIC SUPERCONDUCTIVITY IN HEAVY-FERMION, KAGOME, AND QUASICRYSTALS

ROOM: MONTREAL 4-5

Chair: Paramekanti, Arun

17:00 - 17:30 THEORETICAL STUDY OF HEAVY FERMION TOPOLOGICAL SUPERCONDUCTIVITY AND PROPOSAL OF NEXT-GENERATION SPIN-TRIPLET SUPERCONDUCTIVITY
Youichi Yanase, Kyoto University, Japan
Youichi Yanase, Taisei Kitamura, Jun Ishizuka, Kosuke Nogaki, Ryuji Hakuno, Akihiro Minamide, Akito Daido

17:30 - 17:45 THEORY OF JOSEPHSON STM/STS ON TOPOLOGICAL SUPERCONDUCTORS
Jushin Tei, Department of Materials Engineering Science, Osaka University, Japan
Jushin Tei, Ryo Hanai, Satoshi Fujimoto, Takeshi Mizushima

17:45 - 18:00 SIGNATURES OF UNCONVENTIONAL SUPERCONDUCTIVITY IN THE KAGOME SUPERCONDUCTORS CS(V1-XTIX)3SB5
Kee Hoon Kim, Seoul National University, South Korea
Kee Hoon Kim

18:00 - 18:30 MULTIPOLAR PHYSICS AND SUPERCONDUCTORS IN QUASICRYSTALS
SungBin Lee, Korea Advanced Institute of Science and Technology, South Korea
SungBin Lee

TS10 KONDO PHYSICS IN 1D

ROOM: MONTREAL 1-2

Chair: Sullow, Stefan

17:00 - 17:30 TOPOLOGICAL TRANSITION TO A 'NON-LANDAU' FERMI LIQUID PHASE IN A TWO-CHANNEL SPIN-1 ANISOTROPIC KONDO MODEL AND ITS EXPERIMENTAL RELEVANCE

Armando Aligia, Instituto de Nanociencia y Nanotecnologìa, CNEA-CONICET, Argentina

Armando Aligia

17:30 - 17:45 COMPLEX MAGNETIC BEHAVIOR OF THE CE SAWTOOTH CHAINS IN CERHSN2

Jeroen Custers, Charles University, Faculty of Mathematics and Physics, Department of Condensed Matter Physics, Czech Republic, Czech Republic

Jeroen Custers

17:45 - 18:00 PRESSURE EVOLUTION OF MAGNETIC STRUCTURES AND QUASIPARTICLE EXCITATIONS IN THE FRUSTRATED ZIGZAG-CHAIN COMPOUND YBCUS2

Fumiya Hori, Kyoto University, Japan

Fumiya Hori, Hiroyasu Matsudaira, Shunsaku Kitagawa, Kenji Ishida, Hiroto Suzuki, Takahiro Onimaru

18:00 - 18:30 EXPLORING DIMENSIONALITY'S IMPACT ON CEIN' NANOWIRES: EVIDENCE FOR DIMENSIONALITY-INDUCED MAGNETIC ORDER FRUSTRATION

Ricardo Urbano, Unicamp, Brazil

Ricardo Urbano, Maria Helena Carvalho, Davi Antonio Zau de Alvarenga, Rong Cong, Arneil Reyes, Joe Thompson, Stephen House, Henrique Pizzi, Gabriel Silva Freitas, Ana Maria Caffer, Kleber Pirota, Priscila F. S. Rosa, Pascoal Pagliuso

TS11 FOCUS SESSION: QUANTUM PHASE TRANSITIONS

ROOM: MONTREAL 6-7

Chair: Continentino, Mucio

17:00 - 17:30 PSEUDOGAP AND KONDO HYBRIDIZATION IN QUANTUM CRITICAL SUPERCONDUCTORS

Tuson Park, Sungkyunkwan University, South Korea

Tuson Park

17:30 - 18:00 EMERGENT POLAR METAL PHASE IN A VAN DER WAALS MOTT MAGNET

Shiyu Deng, Institut Laue-Langevin (ILL); Cavendish Laboratory, University of Cambridge, France

Siddharth Saxena, Shiyu Deng

18:00 - 18:30 STRANGE METALS, ENTANGLEMENT, AND TOPOLOGICAL FLAT BANDS

Qimiao Si, Rice University, United States of America
Qimiao Si

Tuesday, July 8, 2025

PLENARY SESSION

ROOM: MONTREAL 4-5

Chair: Ramires, Aline

08:15 - 09:00 ALTERMAGNETISM: UNCONVENTIONAL SPIN-ORDERED PHASE OF MATTER
Tomas Jungwirth, Institute of Physics, Czech Academy of Sciences and University of Nottingham UK, Czech Republic
Tomas Jungwirth

09:00 - 09:45 PERSISTENT SPIN CURRENTS IN SUPERCONDUCTING ALTERMAGNETS
Marcel Franz, University of British Columbia, Canada
Marcel Franz

TS13 NEVILL F. MOTT PRIZES & THEORETICAL ADVANCES IN HIGH-TC SUPERCONDUCTIVITY

Prize winners - ex equo : Pavel A. Volkov and John Sous

ROOM: MONTREAL 4-5

Chair: Atkinson, Bill

10:15 - 10:45 NEW PATHWAYS TO HIGH-TEMPERATURE SUPERCONDUCTIVITY FROM PHONONS
John Sous, Yale University, United States of America
John Sous

10:45 - 11:00 CLUSTER DYNAMICAL MEAN FIELD STUDY OF INTRA-UNIT-CELL CHARGE NEMATICITY IN HOLE-DOPED CUPRATES
AndrÈ-Marie Tremblay, UniversitÈ de Sherbrooke, Canada
AndrÈ-Marie Tremblay, Abhishek Kumar, David SÈnÈchal

11:00 - 11:15 TOWARDS AN AB INITIO THEORY FOR HIGH-TEMPERATURE SUPERCONDUCTORS
Benjamin Bacq-Labreuil, Institut de Physique et Chimie des MatÈriaux de Strasbourg, UniversitÈ de Strasbourg, France
Benjamin Bacq-Labreuil, Benjamin Lacasse, AndrÈ-Marie Tremblay, David SÈnÈchal, Kristjan Haule

11:15 - 11:30 ATOMIC AND BOND POLARIZATION CAUSING STRONG SCREENING OF SHORT-RANGE COULOMB INTERACTIONS AND ITS EFFECT IN CUPRATE SUPERCONDUCTORS
Nassim Derriche, Stewart Blusson Quantum Matter Insitute - University of

British Columbia, Canada
Nassim Derriche, George Sawatzky

11:30 - 12:00 UNDERSTANDING MOIRE MATERIALS AND UNCONVENTIONAL SUPERCONDUCTIVITY WITH SYMMETRIES
Pavel Volkov, University of Connecticut, United States of America
Pavel Volkov

TS14 FOCUS SESSION: EXPERIMENTAL ADVANCES IN ALTERMAGNETS AND HELIMAGNETS

ROOM: MONTREAL 6-7

Chair: Cris Adriano

10:15 - 10:45 HUNTING FOR NEW HELIMAGNETIC MATERIALS: P-WAVE MAGNETS AND WEYL HELIMAGNETS
Max Hirschberger, The University of Tokyo, Japan
Max Hirschberger

10:45 - 11:00 MAGNETO-OPTICAL STUDY OF ANTIFERROMAGNETIC COLLECTIVE MODES IN NII2: EVIDENCE OF ZERO-FIELD MAGNON SPLITTING
Kartik Panda, Ariel University, Israel
Kartik Panda, Nimrod Bachar

11:00 - 11:15 CHIRAL-SPLIT MAGNON IN ALTERMAGNETIC MNTE
Zheyuan Liu, Institute for Solid State Physics, the University of Tokyo, Japan
Zheyuan Liu, Makoto Ozeki, Shinichiro Asai, Shinichi Itoh, Takatsugu Masuda

11:15 - 11:30 NEW ALTERMAGNETIC MATERIAL CANDIDATES SHOWING 4F-MAGNETISM
Franziska Walther, Goethe University Frankfurt, Germany
Franziska Walther, Johannes Fey, Michelle Ocker, Libor Smejkal, Cornelius Krellner, Kristin Kliemt

TS15 MAGNETIC FIELD EFFECTS IN 1D SYSTEMS

ROOM: MONTREAL 1-2

Chair: Aligia, Armando

10:15 - 10:30 TESTING THE PUTATIVE TOMONAGA-LUTTINGER LIQUID TO FERMI LIQUID CROSSOVER IN LI0.9MO6O17 THROUGH BOLTZMANN ANALYSIS OF THE HALL RESISTIVITY
Tim Huijbregts, University of Bristol, United Kingdom
Tim Huijbregts, Arwin Kool, Morgan Grant, Piotr Chudzinski, Martha Greenblatt, Nigel Hussey

10:30 - 10:45 EXPLORING EMERGENT SYMMETRIES IN THE CANDIDATE TOMONAGA-LUTTINGER LIQUID LI0.9MO6O17

Arwin Kool, HFML-FELIX, Netherlands

Arwin Kool, Tim Huijbregts, Morgan Grant, Maurice Bal, Sandra Kleuskens, Martha Greenblatt, Piotr Chudzinski, Nigel Hussey

10:45 - 11:00 QUANTUM CRITICALITY AND DIMENSIONAL REDUCTION IN THE FRUSTRATED SAWTOOTH CHAIN COMPOUND ATACAMITE

Stefan S¸llow, TU Braunschweig, Germany

Leonie Heinze, Tommy Kotte, Roman Rausch, Albin Demuer, Sven Luther, Ralf Feyerherm, Andrew Ammerlaan, Ulrich Zeitler, Denis Gorbunov, Marc Uhlarz, Kirrily Rule, Anja Wolter, Hannes K¸hne, Jochen Wosnitza, Christoph Karrasch, Stefan S¸llow

11:00 - 11:15 MAGNETIC-FIELD-INDUCED REENTRANT PHASE TRANSITIONS IN BAYB2X4 (X = S, SE) WITH ONE DIMENSIONAL YB ZIGZAG CHAIN

Hiroto Suzuki, Hiroshima University, Japan

Hiroto Suzuki, Yasuyuki Shimura, Takahiro Onimaru

11:15 - 11:30 MAGNETIC FIELD STUDIES ON DISGUISED ISING CHAIN, CONB2O6

Philip Richard, University of Toronto, Canada

Philip Richard, Jiefu Cen, Derek Churchill, Hae-Young Kee

TS16 FERMI SURFACE PROBES IN SCES

ROOM: MONTREAL 3

Chair: Singleton, John

10:15 - 10:45 THE REVERSE QUANTUM LIMIT AND ITS IMPLICATIONS FOR UNCONVENTIONAL QUANTUM OSCILLATIONS IN YBB12

Christopher Mizzi, Los Alamos National Laboratory, United States of America

Christopher Mizzi, Satya Kushwaha, Priscila F. S. Rosa, Adam Phelan, David Arellano, Lucas Pressley, Tyrel McQueen, Mun Chan, Neil Harrison

10:45 - 11:00 TEMPERATURE-DEPENDENT ELECTRONIC STRUCTURE OF LARGE TK CE COMPOUNDS

Jonathan Denlinger, Lawrence Berkeley National Laboratory, United States of America

Jonathan Denlinger, Seungho Seong, Jeongsoo Kang, Bo Gyu Jang, Jianxin Zhu, Thomas B¨hm, Filip Ronning, Toshiro Takabatake

11:00 - 11:15 MASS-SELECTIVE DE HAAS-VAN ALPHEN MEASUREMENTS IN THE SEMIMETAL MOSI_2 USING TEMPERATURE MODULATION

Michelle Hollricher, Technical University of Munich, Germany

Michelle Hollricher, Andreas Bauer, Louw Feenstra, Christian Pfleiderer, Marc A. Wilde

11:15 - 11:30 A NEW TECHNIQUE FOR MEASURING QUANTUM OSCILLATIONS: AC ELASTORESISTIVITY
Diana Spulber, Stanford University, United States of America
Diana Spulber, Sayak Ghosh, Qianni Jiang, Benito Gonzalez, Alexey Suslov, Ian Fisher

11:30 - 11:45 SIZE-RESTRICTED MAGNETO-TRANSPORT IN PDCOO2
Graham Baker, Max Planck Institute for Chemical Physics of Solids, Germany
Graham Baker, Michal Moravec, Aaron Sharpe, Maja Bachmann, Nabhanila Nandi, Arthur Barnard, Carsten Putzke, Seunghyun Khim, Markus Kˆnig, David Goldhaber-Gordon, Philip Moll, Andrew Mackenzie

International Advisory Committee (IAC) meeting

12:30 - 14:00

ROOM : VILLE MARIE

TS17 FOCUS SESSION: THEORETICAL INSIGHTS INTO ALTERMAGNETISM

ROOM: MONTREAL 4-5

Chair: Jungwirth, Tomas

14:00 - 14:30 ALTERMAGNETISM: A SYMMETRY-BASED PERSPECTIVE
Jeffrey Rau, University of Windsor, Canada
Jeffrey Rau, Paul McClarty

14:30 - 14:45 MULTIFERROIC COLLINEAR ANTIFERROMAGNETS WITH HIDDEN ALTERMAGNETIC SPLITS
Jin Matsuda, The University of Tokyo, Japan
Jin Matsuda, Hikaru Watanabe, Ryotaro Arita

14:45 - 15:00 TUNNEL MAGNETORESISTANCE EFFECT WITH AN ALTERMAGNET CR-DOPED RUO_2
Katsuhiro Tanaka, University of Tokyo, Japan
Katsuhiro Tanaka, Takuya Nomoto, Ryotaro Arita

15:00 - 15:15 SYMMETRY OPERATION AND SPIN-SPLITTING
Hisatomo Harima, Kobe University, Japan
Hisatomo Harima

15:15 - 15:30 LIGHT-POLARIZATION CONTROL OF PHOTO-EXCITED ELECTRON SPIN IN ULTRAFAST-PUMPED ALTERMAGNETS
Adolfo Avella, Universit‡ degli Studi di Salerno, Italy
Amir Eskandari-asl, Jorge I. Facio, Oleg Janson, Adolfo Avella, Jeroen van den Brink

TS18 FOCUS SESSION: STRANGE METALS, KONDO SYSTEMS, AND SUPERCONDUCTORS - THEORETICAL INSIGHTS

ROOM: MONTREAL 1-2

Chair: Sachdev, Subir

14:00 - 14:30 STRANGE METALS, INSULATORS AND SUPERCONDUCTORS: A HEAVY FERMION PERSPECTIVE

Piers Coleman, Center for Materials Theory, Rutgers University, United States of America

Piers Coleman, Aaditya Panigrahi, Alexei Tsvelik, Zekun Zhuang

14:30 - 14:45 A MECHANISM FOR THE STRANGE METAL PHASE IN RARE-EARTH INTERMETALLIC COMPOUNDS

Chung-Hou Chung, National Yang Ming Chiao Tung University, Taiwan (Republic of China)

Jiangfan Wang, Yung-Yeh Chang, Chung-Hou Chung

14:45 - 15:00 A COMPREHENSIVE STUDY ON PSEUDOGAP AND STRANGE METAL STATES IN THE SQUARE-LATTICE HUBBARD MODEL

Arata Tanaka, Hiroshima University, Japan

Arata Tanaka

15:00 - 15:15 DE-HYBRIDIZATION CROSSOVER IN STRONGLY CORRELATED METALS

Mucio Continentino, Centro Brasileiro de Pesquisa FÌsica, Brazil

Mucio Continentino

15:15 - 15:30 CORRELATION VERSUS DISSIPATION IN A DISSIPATIVE ANDERSON IMPURITY MODEL

Kazuki Yamamoto, Institute of Science Tokyo (Tokyo Institute of Technology), Japan

Kazuki Yamamoto, Masaya Nakagawa, Norio Kawakami

15:30 - 15:45 KONDO-DRIVEN MAGNETIC TENDENCIES IN VAN HOVE METALS

Krzysztof WÛjcik, Institute of Molecular Physics, Polish Academy of Sciences, Poland

Krzysztof WÛjcik, Johann Kroha, Peter Wahl

15:45 - 16:15 A MECHANISM FOR QUANTUM-CRITICAL PLANCKIAN METAL PHASE IN HIGH-TEMPERATURE CUPRATE SUPERCONDUCTORS

Chung-Hou Chung, National Yang Ming Chiao Tung University, Taiwan (Republic of China)

Yung-Yeh Chang, Khoe Van Nguyen, Kim Remund, Chung-Hou Chung

TS19 CERH2AS2 AND OTHER CE-BASED SUPERCONDUCTORS

ROOM: MONTREAL 6-7

Chair: Knebel, Georg

14:00 - 14:30 COMPETING ELECTRONIC GROUND STATES IN THE HEAVY-FERMION SUPERCONDUCTOR CERH2AS2

John Singleton, NHMFL, Los Alamos National Laboratory, United States of America

Joanna Blawat, Grzegorz Chajewski, Daniel Gnida, John Singleton, Oscar Ayala Valenzuela, Dariusz Kaczorowski, Ross McDonald

14:30 - 14:45 NEGATIVE PRESSURE STUDY ON CERH2AS2 THROUGH LA-SUBSTITUTION

Sushma Lakshmi Ravi Sankar, Max Planck Institute for Chemical Physics of Solids, Germany

Sushma Lakshmi Ravi Sankar, Arushi Yadav, Joachim Wosnitza, Manuel Brando, Seunghyun Khim

14:45 - 15:00 MULTIPOLE FLUCTUATIONS IN CERH2AS2 BY DFT+DMFT METHOD

Koki Numa, Okayama University, Japan

Koki Numa, Eri Matsuda, Junya Otsuki

15:00 - 15:15 ORIGIN OF SUPERCONDUCTIVITY AND ANTIFERROMAGNETISM IN CERH2AS2

Philip Brydon, University of Otago, New Zealand

Changhee Lee, Daniel F. Agterberg, Philip Brydon

15:15 - 15:30 CLOSE CORRELATION BETWEEN T0, SUPERCONDUCTIVITY AND ANTIFERROMAGNETISM IN CERH2AS2

Shiki Ogata, Kyoto University, Japan

Shiki Ogata, Takuto Yamada, Shunsaku Kitagawa, Kenji Ishida, Manuel Brando, Elena Hassinger, Christoph Geibel, Seunghyun Khim

15:30 - 15:45 NODELESS SUPERCONDUCTING STATE IN THE PRESENCE OF ZERO-FIELD STAGGERED MAGNETIZATION IN CERH2AS2

Tomasz Cichorek, Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Wroclaw 50-422, Poland, Poland

Jaroslaw Juraszek, Grzegorz Chajewski, Dariusz Kaczorowski, Marcin Konczykowski, Daniel F. Agterberg, Tomasz Cichorek

TS20 FOCUS SESSION: HIGH-FIELD PHASES AND TECHNIQUES IN SCES

ROOM: MONTREAL 3

Chair: Fu, Mingxuan

14:00 - 14:30 NON-PERTURBATIVE MAGNETIC FIELD EFFECTS ON STRONGLY CORRELATED MATERIALS BY ULTRAHIGH FIELDS OF 1000 T

Yasuhiro H. Matsuda, Institute for Solid State Physics, University of Tokyo, Japan

Yasuhiro H. Matsuda, Yuto Ishii, Akihiko Ikeda, Hiroaki Hayashi, Shiyue Peng, Polin Chiu

14:30 - 14:45 COLLAPSE OF MOLECULAR ORBITAL ELECTRONIC STATE INDUCED BY ULTRAHIGH MAGNETIC FIELDS IN V6O13

Yuto Ishii, Institute for Solid State Physics, University of Tokyo, Japan

Yuto Ishii, Akihiko Ikeda, Yasuhiro H. Matsuda

14:45 - 15:00 ALIGNMENT-FREE MEASUREMENT OF THE MAGNETO-OPTICAL KERR EFFECT UNDER PULSE MAGNETIC FIELD

Atsutoshi Ikeda, Kyoto University, Japan

Sota Nakamura, Atsutoshi Ikeda, Soichiro Yamane, Kosuke Noda, Akihiko Ikeda, Shingo Yonezawa

15:00 - 15:30 SCANNING TUNNELING MICROSCOPY AND SPECTROSCOPY OF HEAVY FERMION SUPERCONDUCTORS

Hermann Suderow, UAM, Spain

Hermann Suderow

15:30 - 15:45 IDENTIFYING FULDE-FERRELL-LARKIN-OVCHINNIKOV SUPERCONDUCTIVITY IN SRRUO VIA MAGNETOTROPIC RESPONSE

Gulnaz Rakhmanova, Institute of Science and Technology Austria, Austria

Gulnaz Rakhmanova, Kimberly Modic

15:45 - 16:00 FIELD-INDUCED ANTIFERROMAGNETIC TRANSITION IN CEIRIN5

Yo Tokunaga, Japan Atomic Energy Agency, Japan

Yo Tokunaga, Michi-To Suzuki, Steffen Kramer, Hironori Sakai, Shinsaku Kambe, Hisatomo Harima, Dai Aoki, Mladen Horvatic, Ilya Sheikin

16:00 - 16:30 FIELD-INDUCED PHASES REVEALED BY NEUTRON DIFFRACTION IN HIGH PULSED MAGNETIC FIELD

Fabienne Duc, Laboratoire National des Champs MagnÈtiques Intenses- EMFL, CNRS, Univ. Grenoble Alpes, INSA-T, Univ. Toulouse 3, France

Fabienne Duc

TS21 BRYAN R. COLES PRIZE; LOW-TEMPERATURE & NOVEL EXPERIMENTAL TECHNIQUES

Prize winner : Jan Knapp

ROOM: MONTREAL 3

Chair: Bauer, Ernst

17:00 - 17:30 MAGNETIC PHASES OF YBRH2SI2, EFFECT OF THE HYPERFINE INTERACTIONS AND ISOTOPIC ENRICHMENT

Jan Knapp, Royal Holloway University of London, United Kingdom

Jan Knapp, Lev Levitin, Jan Nyeki, Brian Cowan, Manuel Brando, Christoph Geibel, Kristin Kliemt, Cornelius Krellner, John Saunders

17:30 - 17:45 CRYOGENIC MAGNETIC REFRIGERATION OF CE-BASED STRONGLY CORRELATED METALS

Kanta Watanabe, Hiroshima University, Japan

Kanta Watanabe, Yasuyuki Shimura, Takahiro Onimaru

17:45 - 18:00 ORBITAL KERR EFFECT AND TERAHERTZ DETECTION VIA THE SECOND ORDER HALL EFFECT

Diego Garcìa Ovalle, UniversitÈ de Sherbrooke, Canada

Diego Garcìa Ovalle, Armando Pezo, AurÈlien Manchon

18:00 - 18:30 SENSING QUANTUM TRANSITIONS IN A SINGLE 4F-ELECTRON SPIN USING A NEARBY ATOM

Soo-hyon Phark, IBS Center for Quantum Nanoscience, South Korea

Soo-hyon Phark

TS22 ALTERMAGNETISM IN METALS

ROOM: MONTREA 1-2

Chair: Franz, Marcel

17:00 - 17:30 WHAT IS WRONG WITH BEING SUPERFICIAL? [FROM PURE TO MIXED: ALTERMAGNETS AS INTRINSIC SYMMETRY-BREAKING INDICATORS]

Aline Ramires, Institut f¸r†Festkˆrperphysik, Austria

Aline Ramires

17:30 - 17:45 UNCONVENTIONAL SUPERCONDUCTIVITY IN ALTERMAGNETS WITH SPIN-ORBIT COUPLING

Hermann Freire, Instituto de Fìsica, Universidade Federal de Goi·s, Brazil

Vanuildo S. de Carvalho, Hermann Freire

17:45 - 18:00 ALTERMAGNETISM-INDUCED FULDE-FERRELL STATE

Shuntaro Sumita, The University of Tokyo, Japan

Shuntaro Sumita, Makoto Naka, Hitoshi Seo

18:00 - 18:15 ITINERANT MODELS FOR ODD-PARITY MAGNETISM
Philip Brydon, University of Otago, New Zealand
Changhee Lee, Philip Brydon

TS23 ULTRAFAST AND TIME-RESOLVED MEASUREMENTS IN SCES

ROOM: MONTREAL 4-5

Chair: Kim, Soyeun

17:00 - 17:30 ULTRAFAST SPIN SWITCHING IN ANTIFERROMAGNETS BY TERAHERTZ MAGNETIC FIELDS
Hideki Hirori, Kyoto university, Japan
Hideki Hirori

17:30 - 17:45 ULTRAFAST TIME-RESOLVED X-RAY DIFFRACTION STUDY OF DOMAIN GROWTH DYNAMICS FOR PHOTO-INDUCED PHASE TRANSITION IN V1-XWXO2 THIN FILMS
Le Nguyen, Department of Materials Structure Science, The Graduate University for Advanced Studies (SOKENDAI), Japan
Le Nguyen, Shunsuke Nozawa, Daisuke Okuyama, Hironori Nakao, Keisuke Shibuya, Rie Haruki, Yuya Kubota, Tadashi Togashi, Shigeki Owada, Tetsuo Katayama, Makina Yabashi, Shin-ichi Adachi, Ryo Fukaya

17:45 - 18:00 TIME-RESOLVED TERAHERTZ EVIDENCE FOR UNCONVENTIONAL HEAVY FERMIONS IN A KAGOME METAL
Jacob Pettine, Massachusetts Institute of Technology, United States of America
Clifford Allington, Jacob Pettine, Tommy Tai, Minyong Han, Caolan John, Peter Meidaner, David Rohrbach, Keith Nelson, Joseph Checkelsky, Nuh Gedik

18:00 - 18:15 ULTRAFAST ELECTRON DYNAMICS IN P-DOPED BI2TE3 VIA TIME-RESOLVED ARPES: WHAT WE MISSED FOR TWO DECADES
Francesco Goto, Insitute National de la recherche scientifique, Canada
Akib Jabed, Francesco Goto, Dario Armanno, Nicolas Gauthier, Samuel Beulieu, Fabio Boschini

18:15 - 18:30 SECOND HARMONIC GENERATION ANISOTROPY IN CORRELATED MATERIALS
Simon Daneau, UniversitÈ de MontrÈal, Canada
Simon Daneau, Andrea Bianchi, Richard Leonelli

TS24 NEW PERSPECTIVES ON KNOWN SUPERCONDUCTING STATES

ROOM: MONTREAL 6-7

Chair: Yanase, Youichi

17:00 - 17:30 TAKING THE 'SUPER' OUT OF PHOTOINDUCED SUPERCONDUCTIVITY
J. Steven Dodge, Simon Fraser University, Canada
J. Steven Dodge, Leya Lopez

17:30 - 17:45 INVESTIGATION OF THE BAND STRUCTURE OF TRANSITIONS METAL SUBSTITUTED BAFE2-XMXAS2 (M = CO, CU, CR, RU AND MN) BY POLARIZATION DEPENDENT ARPES MEASUREMENTS
Kevin Raduenz Pakuszewski, Institut Quantique, UniversitÈ de Sherbrooke, Canada
Kevin Raduenz Pakuszewski, Ivan Romanenko, Alisson P. Machado, Mario Moda Piva, Marli dos Reis Cantarino, Fernando A. Garcia, Pascoal Pagliuso, Cris Adriano

17:45 - 18:15 UNANSWERED QUESTIONS RAISED BY THE MEISSNER EFFECT AND PROPOSED ANSWERS
Jorge E. Hirsch, Department of Physics, University of California San Diego, United States of America
Jorge E. Hirsch

Wednesday, July 9, 2025

PLENARY SESSION

ROOM: MONTREAL 4-5

Chair: Kee, Hae-Young

08:15 - 09:00 THE QUEST FOR QUANTUM SPIN LIQUIDS IN FRUSTRATED MAGNETS
Cristian Batista, University of Tennessee, United States of America
Cristian Batista

09:00 - 09:45 PROBING CONDENSATES' COHERENCE BY TIME-RESOLVED ARPES
Andrea Damascelli, University of British Columbia, Canada
Andrea Damascelli

TS25 PROBING SPIN EXCITATIONS AND FLUCTUATIONS IN SCES

ROOM: MONTREAL 4-5

Chair: Huxley, Andrew

10:15 - 10:45 TOWARDS ONE DIMENSIONAL HEAVY FERMIONS
Meigan Aronson, The University of British Columbia, Canada
Meigan Aronson, Xiyang Li, Alberto Nocera, George Sawatzky, Kateryna Foyevtsova

10:45 - 11:00 SPIN WAVES OF CEPD2SI2
Filip Ronning, Los Alamos National Lab, United States of America
Filip Ronning, Wolfgang Simeth, Esteban Ghioldi, Zachary Riedel, Andrey Podlesnyak, Eric Bauer, Jianxin Zhu, Cristian Batista, Marc Janoschek, Allen Scheie

11:00 - 11:15 MANIPULATION OF SPIN-EXCITATIONS IN BIFEO3 VIA ELECTRIC FIELD
Taehun Kim, Brookhaven National Laboratory, United States of America
Taehun Kim, Shiyu Fan, Vivek Bhartiya, Kim Kisslinger, Fernando Camino, Seongsu Lee, Je-Geun Park, Sang-Wook Cheong, Mark Dean, Jonathan Pelliciari, Valentina Bisogni

11:15 - 11:30 BEYOND LOCAL FOUR-BODY MAGNON INTERACTIONS IN A HALF-FILLED TL-BASED CUPRATE
Izabela Bialo, University of Zurich, Switzerland
Izabela Bialo, Qisi Wang, Julia K¸spert, Leonardo Martinelli, Ola Forslund, Wojciech Pudeko, Chun Lin, Nicholas B. Brookes, Mitoyuki Ishikado, Hiroshi Eisaki, Johan Chang

11:30 - 11:45 SLOW SPIN FLUCTUATIONS IN D'ELECTRON INSULATOR FESB2
Nicholas Popiel, University of Cambridge, United Kingdom
Nicholas Popiel, Suchitra Sebastian

TS26 GRAPHENE AND TRANSITION-METAL DICHALCOGENIDES

ROOM: MONTREAL 6-7

Chair: Félix Desrochers

10:15 - 10:45 FRACTIONAL JOSEPHSON EFFECTS IN VAN DER WAALS JOSEPHSON JUNCTIONS BASED ON WTE2 AND FETE0.55SE0.45
Gilho Lee, POSTECH, South Korea
Gilho Lee

10:45 - 11:00 RHOMBOHEDRAL GRAPHENE: SPIN CANTING, COLLECTIVE MODES AND SUPERCONDUCTIVITY
Étienne Lantagne-Hurtubise, UniversitÈ de Sherbrooke, Canada
Étienne Lantagne-Hurtubise

11:00 - 11:15 WHEN COULD ABELIAN FRACTIONAL TOPOLOGICAL INSULATORS EXIST IN TWISTED MOTE2 (AND OTHER SYSTEMS)
Glenn Wagner, ETH Zurich, Switzerland
Glenn Wagner

11:15 - 11:30 CHARGE AND SPIN PROPERTIES OF A GENERALIZED WIGNER CRYSTAL REALIZED IN THE MOIRÈ WSE2/WS2 HETEROBILAYER AT 2/3 FILLING
Andrzej Biborski, AGH University of Krakow, Poland
Andrzej Biborski, Michal Zegrodnik

11:30 - 11:45 HYSTERETIC MAGNETIC TORQUE INDUCED BY CHIRALITY-DRIVEN MAGNETIZATION IN CO1/3TAS2
Younjung Jo, Kyungpook National University, South Korea
Younjung Jo

11:45 - 12:00 INSTABILITY OF THE CRITICAL NGAI COUPLING AND TWO-BOSON MECHANISM IN METALS
Vladyslav Kozii, Carnegie Mellon University, United States of America
Vladyslav Kozii, Phu Nguyen

TS27 FOCUS SESSION: QUANTUM CRITICALITY IN HEAVY-FERMION SYSTEMS

ROOM: MONTREAL 3

Chair: Park, Tuson

10:15 - 10:45 QUANTUM CRITICALITY IN HEAVY FERMION SYSTEMS -- A REAL-FREQUENCY PERSPECTIVE
Andreas Gleis, Rutgers University, United States of America
Andreas Gleis, Seung-Sup Lee, Gabriel Kotliar, Jan von Delft

10:45 - 11:00 EMERGENT TOPOLOGICAL STATE IN QUANTUM CRITICAL CERU4SN6
Diana M. Kirschbaum, TU Wien, Austria
Diana M. Kirschbaum, Lei Chen, Diego A. Zocco, Haoyu Hu, Federico Mazza, Julio Larrea JimÈnez, AndrÈ M. Strydom, Devashibhai Adroja, Xinlin Yan, Andrey Prokofiev, Qimiao Si, Silke Paschen

11:00 - 11:15 RKKY-INDUCED KONDO SUPPRESSION IN HEAVY-FERMION MATERIALS
Ulli Pohl, University of Bonn, Germany
Ulli Pohl, Johann Kroha

11:15 - 11:45 MAGNETIC-FIELD TUNED QUANTUM CRITICALITY AND FERMI SURFACE EVOLUTION IN MULTIPOLAR KONDO SYSTEM PRV2AL20
Mingxuan Fu, University of Tokyo, Japan
Mingxuan Fu, Akito Sakai, Zhuo Yang, Takachika Isomae, Masaki Tsujimoto, Motoi Kimata, Yoshimitsu Kohama, Satoru Nakatsuji

TS28 ENGINEERING AND PROBING FRUSTRATED MAGNETS

ROOM: MONTREAL 1-2

Chair: Kim, Yong-Baek

10:15 - 10:30 ZERO-TO-PERFECT TORON HALL EFFECT IN CHIRAL MAGNETS
Kotaro Shimizu, RIKEN Center for Emergent Matter Science, Japan
Kotaro Shimizu, Shun Okumura, Yasuyuki Kato, Yukitoshi Motome

10:30 - 10:45 MAGNETOELASTIC CHARACTERISTICS OF SKYRMION FORMATION IN 3D AND 4F COMPOUNDS
Mathias Doerr, Technische Universit‰t Dresden, Institut f¸r Festkˆrper- und Materialphysik, Germany
Mathias Doerr, Justus Grumbach, Sergey Granovsky, Andreas Hauspurg, Sergei Zherlitsyn, Martin Rotter, Vladimir Tsurkan, Max Hirschberger

10:45 - 11:00 STABILITY OF THE SKYRMION LATTICE IN FE1-XCOXSI
Carolina Burger, Technical University of Munich, Germany
Carolina Burger, Andreas Bauer, Denis Mettus, Sebastian M¸hlbauer, AndrÈ Heinemann, Grace Causer, Anna Sokolova, Christian Pfleiderer

11:00 - 11:15 REDUCED MAGNETIC ORDER AND SPIN EXCITATIONS IN FRUSTRATED HOINCU4
Oliver Stockert, Max-Planck-Institut f¸r Chemische Physik fester Stoffe, Germany
Oliver Stockert, Xavier Boraley, Jakob Lass, Romain Sibille, Oystein Fjellvag, Samuel Moody, Andreas M. L‰uchli, Veronika Fritsch, Daniel G. Mazzone

11:15 - 11:30 FINGERPRINTS OF SUPERSYMMETRIC SPIN AND CHARGE DYNAMICS IN A QUANTUM SPIN LADDER
Bjˆrn Wehinger, European Synchrotron Radiation Facility, France
Bjˆrn Wehinger

TS29 FOCUS SESSION: SCES AT THE FEW-LAYER LIMIT

ROOM: MONTREAL 6-7

Chair: Park, Je Geun

14:00 - 14:30 HEAVY-FERMION PHYSICS IN THE VDW-MATERIAL UTE3
Wolfgang Simeth, Los Alamos National Laboratory, MPA-Q, United States of America
Wolfgang Simeth

14:30 - 15:00 INTRINSIC HEAVY FERMION BEHAVIOR IN TWO DIMENSIONAL SYSTEMS
Bo Gyu Jang, Kyung Hee University, South Korea
Bo Gyu Jang

15:00 - 15:15 PROBING THE MAGNETIC, ELECTRONIC AND CRYSTAL STRUCTURE OF FEW-LAYER ALPHA-RUCL3 BY ELECTRON TUNNELING

Sam Dehlavi, UniversitÈ de Sherbrooke, Canada

Mathieu Massicotte, Sam Dehlavi, Xiaoyu Liu, James L. Hart, Elio Garnaoui, Paula Lampen-Kelley, Jiaqiang Yan, David Mandrus, Stephen Nagler, Kenji Watanabe, Takashi Taniguchi, Bertrand Reulet, Judy J. Cha, Hae-Young Kee, Jeffrey Quilliam

15:15 - 15:30 NEAR ROOM-TEMPERATURE FERROMAGNETISM AND INSULATOR-METAL TRANSITION IN VAN DER WAALS MATERIAL CRGETE3

Junya Otsuki, Okayama University, Japan

Daniel Guterding, Jihaan Ebad-Allah, Gili Scharf, Han-Xiang Xu, Makoto Shimizu, Junya Otsuki, Alon Ron, Christine Kuntscher, Harald O. Jeschke

15:30 - 15:45 MODELING AND TAILORING THE PROPERTIES OF 2D VAN DER WAALS MAGNETS

JosÈ J. Baldovì, ICMol, University of Valencia, Spain

JosÈ J. Baldovì, Alberto M. Ruiz, Dorye L. Esteras, Gonzalo Rivero-Carracedo, Sourav Dey, Andrey Rybakov, Andrei Shumilin

15:45 - 16:00 QUANTUM GEOMETRIC FERROMAGNETISM ARISING FROM SINGULAR SADDLE POINT

Taisei Kitamura, RIEKN, Japan

Taisei Kitamura, Hiroki Nakai, Akito Daido, Youichi Yanase

16:00 - 16:30 QUANTUM ANOMALOUS HALL PHENOMENA IN RHOMBOHEDRAL GRAPHENE

Senthil Todadri, Massachusetts Institute of Technology, United States of America

Senthil Todadri

TS30 MULTIPOLAR PHYSICS IN SCES

ROOM: MONTREAL 4-5

Chair: Lee, Sungbin

14:00 - 14:30 MULTIPOLAR MAGNETISM: FROM BITS TO BROKEN SYMMETRIES

Arun Paramekanti, University of Toronto, Canada

Arun Paramekanti, Ruairidh Sutcliffe, Kathleen Hart, Gil Refael

14:30 - 14:45 MAGNETIC-FIELD-INDUCED BREAKDOWN OF THE NONMAGNETIC STATE IN LACUNAR SPINEL GANB4SE8

Masaki Gen, Institute for Solid State Physics, University of Tokyo, Japan

Masaki Gen, Shunsuke Kitou, Shion Yamada, Yusuke Tokunaga, Taka-hisa Arima, Yoshimitsu Kohama

14:45 - 15:00 FRACTIONALIZED EXCITATIONS AND EMERGENT PHOTONS IN DIPOLAR-OCTUPOLAR QUANTUM SPIN ICE

Yong-Baek Kim, University of Toronto, Canada

Yong-Baek Kim

15:00 - 15:15 THE NONLINEAR MAGNETOELECTRIC EFFECT AS A NOVEL DETECTION TOOL FOR OCTUPOLE ORDER
Robert Peters, Kyoto University, Japan
Robert Peters, Jun Oike

15:15 - 15:30 MULTIPOLAR MAGNETIC EXCITATIONS IN THE SPIN CHAIN CHALCOGENIDE RBFES2
Stefano Agrestini, Diamond Light Source Ltd, United Kingdom
Stefano Agrestini, Sahil Tippireddy, Mirian Garcia-Fernandez, Alberto Nocera, Ke-Jin Zhou

15:30 - 15:45 INTERPLAY BETWEEN QUADRUPOLAR ORDER, MAGNETIC ORDER, AND STRUCTURAL DISTORTIONS IN 5D1 DOUBLE PEROVSKITES
Claude Ederer, Materials Theory, ETH Zurich, Switzerland
Francesco Martinelli, Claude Ederer

15:45 - 16:00 MICROSCOPIC ORIGIN OF CROSS-PRODUCT-TYPE SPIN-ORBIT COUPLING UNDER FERROAXIAL ORDERING
Akane Inda, Hokkaido University, Japan
Akane Inda, Satoru Hayami

TS31 NEW INSIGHTS INTO THE SUPERCONDUCTING STATE OF CUPRATES

ROOM: MONTREAL 1-2

Chair: Taillefer, Louis

14:00 - 14:30 THEORY OF HIGH-TC SUPERCONDUCTIVITY IN CUPRATES
Eduardo Marino, IF UFRJ, Brazil
Eduardo Marino

14:30 - 14:45 TRANSPORT AND THE KADOWAKI-WOODS RATIO IN OVERDOPED LA2CUO4
Azin Kazemi Moridani, UniversitÈ de MontrÈal, Canada
Azin Kazemi Moridani, Olivier Gingras, Antoine Georges

14:45 - 15:00 THERMAL FLUCTUATIONS AND INHOMOGENEITY IN OVERDOPED CUPRATES
Bill Atkinson, Trent University, Canada
Bill Atkinson, Miguel Sulangi, Willem Farmilo, Andreas Kreisel, Peter Hirschfeld

15:00 - 15:15 THERMAL HALL CONDUCTIVITY AS A PROBE OF THE QUASIPARTICLE MEAN FREE PATH IN CUPRATE SUPERCONDUCTORS
Emma Campillo, UniversitÈ de Sherbrooke, Canada
Munkhtuguldur Altangerel, Manel Mezidi, Emma Campillo, Lu Chen, Ashvini Vallipuram, Quentin BarthÈlemy, …tienne LefranÁois, Jordan Baglo, GaÎl Grissonnanche, Anne Forget, Dorothee Colson, Ruixing Liang, Doug Bonn, Walter N. Hardy, Genda Gu, Cyril Proust, Louis Taillefer

15:15 - 15:30 ANOMALOUSLY HIGH QUASIPARTICLE THERMAL CONDUCTIVITY IN THE UNDERDOPED CUPRATE SUPERCONDUCTOR HG1201

Jordan Baglo, UniversitÈ de Sherbrooke, Canada

Jordan Baglo, …tienne LefranÁois, Quentin BarthÈlemy, Anne Forget, DorothÈe Colson, Cyril Proust, Louis Taillefer

15:30 - 15:45 ENHANCED SUPERCONDUCTING GAP IN THE HG-BASED TRILAYER CUPRATE SUPERCONDUCTOR REVEALED BY MICRO-SPOT ARPES

Masafumi Horio, University of Tokyo, Japan

Masafumi Horio, Masashige Miyamoto, Yutaro Mino, Ryuta Arai, Shigeyuki Ishida, Yu Murano, Jacek Osiecki, Balasubramanian Thiagarajan, Craig Polley, Chul-Ho Lee, Taichiro Nishio, Hiroshi Eisaki, Iwao Matsuda

15:45 - 16:00 BEYOND HOMES SCALING: DISORDER, THE PLANCKIAN BOUND AND A NEW UNIVERSALITY

David Broun, Simon Fraser University, Canada

David Broun, Vivek Mishra, J. Steven Dodge, Peter Hirschfeld

16:00 - 16:15 VAN DER WAALS CUPRATE SUPERCONDUCTORS-INTEGRATED HYBRID MICROWAVE RESONATORS

Yejin Lee, MPI CPfS, Germany

Yejin Lee, Haolin Jin, Giuseppe Serpico, Edouard Lesne, Berit Goodge, Nicola Poccia, Uri Vool

TS32 DIRAC AND WEYL FERMIONS IN SCES

ROOM: MONTREAL 3

Chair: De Visser, Anne

14:00 - 14:30 WEYL-KONDO SEMIMETALS

Monika Luznik, Institute of Solid State Physics, TU Wien, Austria

Monika Luznik

14:30 - 14:45 CALLAN-RUBAKOV EFFECTS IN TOPOLOGICAL INSULATORS

Masatoshi Sato, Yukawa Institute for Theoretical Physics, Kyoto University, Japan

Masatoshi Sato

14:45 - 15:00 DOPING EFFECTS ON YNISN2: A PUTATIVE DIRAC SEMIMETAL

Rodolfo Carvalho dos Santos, Instituto de FÌsica Gleb Wataghin/UNICAMP, Brazil

Rodolfo Carvalho dos Santos, Gabriel Silva Freitas, Ana Maria Caffer, Henrique Pizzi, Derick Passos, Maria Helena Carvalho, Vitor Moraes, P. G. Pagliuso

15:00 - 15:15 QUANTUM-CLASSICAL CORRESPONDENCE AND NON-EQUILIBRIUM TO EQUILIBRIUM CROSSOVER IN GALVANOMAGNETIC EFFECTS
Akiyoshi Yamada, Kobe University, Japan
Akiyoshi Yamada, Yuki Fuseya

15:15 - 15:30 NODAL LINES AND WEYL POINTS FORMED BY TRIPLET EXCITATIONS
Judit Romh·nyi, University of California Irvine, United States of America
Charles Walker, Matthew Stern, Judit Romh·nyi

15:30 - 15:45 OCTUPOLAR EDGE STATE IN AN EG ORBITAL SYSTEM ON A SQUARE LATTICE
Katsunori Kubo, Japan Atomic Energy Agency, Japan
Katsunori Kubo

TS34 MAGNETISM IN THIN FILMS, INTERFACES, AND VAN DER WAALS MATERIALS

ROOM: MONTREAL 6-7

Chair: Lee, Gilho

17:00 - 17:30 OBSERVATION OF MERMIN-WAGNER BEHAVIOR IN LAFEO3/SRTIO3 SUPERLATTICES
Adam Dubroka, Masaryk University, Czech Republic
Adam Dubroka

17:30 - 17:45 ENHANCED NONLINEAR RESPONSE BY MANIPULATING THE DIRAC POINT AT THE (111) LATIO3/SRTIO3 INTERFACE
Yoram Dagan, Tel Aviv University, Israel
Yoram Dagan

17:45 - 18:00 EFFICIENT SPIN-TO-CHARGE CONVERSION DRIVEN BY INTERFACIAL SPIN ORBIT COUPLING AT A FULL OXIDE FERROMAGNETIC / QUASI-2-DIMENSIONAL STRUCTURE
Mi-Jin Jin, Institute for Basic Science (IBS), South Korea
Mi-Jin Jin

18:00 - 18:30 MAGNETIC EXCITON IN VAN DER WAALS NIPS3: PUZZLES
Je-Geun Park, Seoul National University, South Korea
Je-Geun Park

18:30 - 18:45 TEMPERATURE DEPENDENCE OF OPTOELECTRONIC PROPERTIES IN VAN DER WAALS MULTIFERROIC CUCRP2S6 SINGLE CRYSTALS
Ryoga Murata, Institute of Science Tokyo, Japan
Ryoga Murata, Takao Sasagawa

TS35 STRAIN AND SCATTERING PROBES OF SUPERCONDUCTIVITY

ROOM: MONTREAL 1-2

Chair: Pfau, Heike

17:00 - 17:15 DECOUPLING OF STATIC AND DYNAMIC CHARGE CORRELATIONS REVEALED BY UNIAXIAL STRAIN IN A CUPRATE SUPERCONDUCTOR

Leonardo Martinelli, University of Zurich, Switzerland

Leonardo Martinelli, Izabela Bialo, Xunyang Hong, Chun Lin, Jens Oppliger, Julia K¸spert, Mark H. Fischer, Tohru Kurosawa, N. Monomo, M. Oda, D. V. Novikov, A. Khadiev, Eugen Weschke, Jaewon Choi, Stefano Agrestini, Kejin Zhou, Qisi Wang, Johan Chang

17:15 - 17:30 CONTRASTING C-AXIS AND IN-PLANE UNIAXIAL STRESS EFFECTS ON SUPERCONDUCTIVITY AND STRIPE ORDER IN LA1.885BA0.115CUO4

Shams Sohel Islam, Paul Scherrer Institut, Switzerland

Shams Sohel Islam, Hubertus Luetkens, Zurab Guguchia

17:30 - 17:45 STRAIN-INDUCED CHANGES IN THE UNCONVENTIONAL SUPERCONDUCTIVITY OF SR2RUO4

Giordano Mattoni, Toyota Riken-Kyoto University Research Center (TRiKUC), Japan

Giordano Mattoni, Atsutoshi Ikeda, Hisakazu Matsuki, Thomas Johnson, Shubhankar Paul, Jake Bobowski, Shingo Yonezawa, Yoshiteru Maeno

17:45 - 18:00 EXPLOITING DISTORTION MODE ANALYSIS FOR STRUCTURE-DRIVEN VAN HOVE SINGULARITY ENGINEERING

Andreas Rost, University of St Andrews, United Kingdom

Andreas Rost

18:00 - 18:15 STRAIN-INDUCED MAGNON HARDENING IN PRNIO2 THIN FILMS REVEALED BY RIXS

Marli dos Reis Cantarino, European Synchrotron Radiation Facility, France

Francesca Martino, Hoshang Sahib, Nicholas B. Brookes, Daniele Preziosi, Marli dos Reis Cantarino

18:15 - 18:30 PERSISTENCE OF SMALL POLARONS INTO THE SUPERCONDUCTING PHASE OF BA_(1-X) K_X BIO_3

Muntaser Naamneh, Ben-Gurion University of the Negev, Israel

Muntaser Naamneh

TS36 MAGNETIC FRUSTRATION IN MN- AND RU-BASED MAGNETS

ROOM: MONTREAL 3

Chair: Ying-Jer Kao

17:00 - 17:15 SHORT-RANGE SPIN CORRELATIONS IN THE 3D FACE-CENTRED FRUSTRATED SPIN-5/2

SYSTEM MNSN(OH)6

Kaushick Parui, TU Dresden, Germany

Kaushick Parui, Anton Kulbakov, Ellen H‰ufller, Nikolai Pavlovskii, Roman Gumeniuk, Maxim Avdeev, Thomas Doert, Dmytro Inosov, Darren Peets

17:15 - 17:30 MAGNETIC FRUSTRATION AND WEAK MN MAGNETIC ORDERING IN EUMN2P2

Sarah Krebber, Physikalisches Institut, Goethe Universtit‰t Frankfurt am Main, Germany

Sarah Krebber, J˙rg Sichelschmidt, Marvin Kopp, Michael Baenitz, Kurt Kummer, Jens M¸ller, Cornelius Krellner, Kristin Kliemt

17:30 - 17:45 ENHANCEMENT OF THE ELECTRONIC SPECIFIC HEAT COEFFICIENT IN HEXAGONAL RMNNI4 (R = LA, PR)

Kazuaki Oda, Hiroshima University, Japan

Kazuaki Oda, Hiroto Suzuki, Xianda Deng, Kanta Watanabe, Yasuyuki Shimura, Takahiro Onimaru

17:45 - 18:00 IDENTIFICATION OF MOLECULAR MOTT PHASES IN HEAVY TRANSITION METAL SYSTEMS USING RESONANT INELASTIC X-RAY SCATTERING

Beom Hyun Kim, Seoul National University, South Korea

Beom Hyun Kim, Yuan Bo, Qiang Chen, Daniel Dobrowolski, Monika Azmanska, Jonathan Pelliciari, J. P. Clancy

Thursday, July 10, 2025

PLENARY SESSION

ROOM: MONTREAL 4-5

Chair: Hassinger, Elena

08:15 - 09:00 DATA-CENTRIC APPROACH TO QUANTUM MATERIALS USING AI

Eunah Kim, Cornell University, United States of America

Eunah Kim

09:00 - 09:45 EPITAXIAL STABILIZATION OF AN UNCONVENTIONAL OXIDE SUPERCONDUCTOR

Julia Mundy, Harvard University, United States of America

Julia Mundy

SYMPOSIUM: MACHINE LEARNING IN SCES

ROOM: MONTREAL 4-5

Chair: Kim, Eunah

10:15 - 10:45 SIMULATING STRONGLY INTERACTING FERMIONS AT FINITE DOPING WITH NEURAL NETWORKS
Hannah Lange, LMU Munich, Germany
Hannah Lange, Annika Bˆhler, Christopher Roth, Annabelle Bohrdt

10:45 - 11:15 NUMERICAL SPECTROSCOPY AND MACHINE LEARNING SELF-ENERGY FOR CUPRATE SUPERCONDUCTORS
Youhei Yamaji, National Institute for Materials Science, Japan
Youhei Yamaji

11:15 - 11:45 CRYSTAL-GFN: A GENERATIVE MACHINE LEARNING MODEL TO DISCOVER CRYSTALS WITH DESIRABLE PROPERTIES AND CONSTRAINTS
Alex Hernandez-Garcia, Mila, Canada
Alex Hernandez-Garcia

SYMPOSIUM: ULTRAFAST SPECTROSCOPY

ROOM: MONTREAL 6-7

Chair: Dodge, Steve

10:15 - 10:45 NOVEL CORRELATIONS AND EXCITATIONS OF SUPERCONDUCTORS PROBED WITH NONLINEAR THZ SPECTROSCOPY
N. Peter Armitage, Johns Hopkins, United States of America
N. Peter Armitage

10:45 - 11:15 NONLINEAR TERAHERTZ SPECTROSCOPY OF COLLECTIVE MODES IN SUPERCONDUCTORS
Ryo Shimano, The University of Tokyo, Japan
Ryo Shimano

11:15 - 11:45 Resolving exciton and polariton multi-particle correlations in an optical microcavity in the strong coupling regime - CARLOS SILVA, UNIVERSITY OF CALIFORNIA, LOS ANGELES, UNITED STATES OF AMERICA

SYMPOSIUM: ENTANGLEMENT IN SCES

ROOM: MONTREAL 1-2

Chair: Si, Qimiao

10:15 - 10:45 IMPRINTS OF MULTIPARTITE ENTANGLEMENT IN SPIN CHAINS AND SPIN LIQUIDS

Erik S¯rensen, McMaster University, Canada
Erik S¯rensen, Liuke Lyu, William Witczak-Krempa

10:45 - 11:15 WITNESSING ENTANGLEMENT IN A HEAVY FERMION STRANGE METAL
Silke Paschen, TU Wien, Austria
Silke Paschen

11:15 - 11:45 PROGRESS ON ENTANGLEMENT WITNESSES FOR STRONGLY CORRELATED SYSTEMS
Pontus Laurell, University of Missouri, United States of America
Pontus Laurell

TS37 SUPERCONDUCTIVITY IN NI-BASED MATERIALS

ROOM: MONTREAL 4-5

Chair: Mundy, Julia

14:00 - 14:30 ARE THERE SIGNS OF QUANTUM CRITICALITY IN SUPERCONDUCTING NICKELATES?
Gaîl Grissonnanche, Ecole Polytechnique, France
Gaîl Grissonnanche, Florence Perreault, Etienne Beauchesne-Blanchet, Juan Santana Gonzalez, Adrien Gourgout, Lir Er Cho, Ariando Ariando, Yuefeng Nie

14:30 - 14:45 ANISOTROPIC SPIN STRIPE DOMAINS IN BILAYER LA3NI2O7
David Hawthorn, University of Waterloo, Canada
David Hawthorn, Naman Gupta, Rantong Gong, Yi Wu, Min Gu Kang, Christopher Parzyck, Benjamin Gregory, Noah Costa, Ronny Sutarto, Suchismita Sarker, Andrej Singer, Darrell Schlom, Kyle Shen

14:45 - 15:00 STRONG-COUPLING SUPERCONDUCTIVITY EMERGING FROM CORRELATED BAND INSULATOR IN BILAYER HUBBARD MODEL
Yusuke Nomura, Institute for Materials Research, Tohoku University, Japan
Yusuke Nomura, Motoharu Kitatani, Shiro Sakai, Ryotaro Arita

15:00 - 15:15 ELECTRONIC STRUCTURE OF LAYERED NICKELATES VIA OXYGEN-CENTERED PLANAR ORBITALS
Christine Au-Yeung, University of British Columbia, Canada
Christine Au-Yeung, Xinglong Chen, Steef Smit, Martin Bluschke, Valentin Zimmermann, Matteo Michiardi, Peter Moan, Josh Kraan, Brian Pang, Cissy Suen, Sergey Zhdanovich, Marta Zonno, Sergey Gorovikov, Liu Yuzi, Giorgio Levy, Ilya Elfimov, Mona Berciu, George Sawatzky, John Mitchell, Andrea Damascelli

15:15 - 15:30 EXPLORING THE ROUTES OF SYNTHESIS FOR HIGH QUALITY SINGLE CRYSTALS OF LA3NI2O7
Derick Passos, Instituto de Fìsica Gleb Wataghin, Universidade Estadual de Campinas, Brazil
Derick Passos, Henrique Pizzi, Maria Helena Carvalho, Rodolfo Carvalho dos

Santos, Ana Maria Caffer, Pascoal Pagliuso, C. Adriano, K. R. Pakuszewski

15:30 - 15:45 SINGLE SPIN-SPINLESS-STRIPE ORDER IN LA3NI2O7 REVEALED BY 139LA-NQR
Hidekazu Mukuda, Osaka university, Japan
Hidekazu Mukuda

15:45 - 16:00 STATIC AND DYNAMIC SIGNATURES OF CHARGE-DENSITY WAVE FORMATION IN BANI2AS2
LoÔc Soriano, Laboratoire National des Champs MagnÈtiques Intenses, CNRS, France
LoÔc Soriano

16:00 - 16:30 THE REVIVAL OF FE-BASED SUPERCONDUCTORS: CASCADES OF SCREENING PROCESSES AND THEIR IMPLICATIONS
Heike Pfau, The Pennsylvania State University, United States of America
Heike Pfau

TS38 ULTRAFAST PROBES IN SUPERCONDUCTORS AND CDW MATERIALS

ROOM: MONTREAL 1-2

Chair: Shimano, Ryo

14:00 - 14:30 FINGERPRINTS OF SUPERCONDUCTING COLLECTIVE MODES IN NONLINEAR THZ SPECTROSCOPIES
Jacopo Fiore, Sapienza University of Rome, Italy
Jacopo Fiore

14:30 - 14:45 DIRECT EVIDENCE OF LIGHT-INDUCED PHASE-FLUCTUATIONS IN CUPRATES VIA TIME- AND ANGLE-RESOLVED PHOTOEMISSION (TR-ARPES)
Dario Armanno, Institut national de la recherche scientifique, Canada
Dario Armanno, Francesco Goto, Shawn Lapointe, FranÁois LÈgarÈ, Nicolas Gauthier, Bradley Siwick, Fabio Boschini

14:45 - 15:00 CONFINED CHARGE ORDER CORRELATIONS AND INTERLAYER COHERENCE IN A TRILAYER CUPRATE
Steef Smit, University of British Columbia, Canada
Steef Smit, Martin Bluschke, Peter Moen, Christine Au-Yeung, Sydney Dufresne, Niclas Heinsdorf, Cissy Suen, Dongjoon Song, Jerry Dadap, Valentin Zimmermann, Sergey Zhdanovich, Matteo Michiardi, Giorgio Levy, Marta Zonno, Sergey Gorovikov, Heemin Lee, Cheng-Tai kuo, Jun-Sik Lee, Shigeyuki Ishida, Hiroshi Eisaki, Bernhard Keimer, David Jones, Andrea Damascelli

15:00 - 15:15 SIGNATURES OF QUASI-BOUND EXCITONS IN LA2CUO4
Yuchen Han, Caltech, United States of America
Yuchen Han, Omar Mehio, Steven Gomez, Stephen Wilson, David Hsieh

15:15 - 15:30 UNVEILING THE LOW-TEMPERATURE NORMAL STATE OF CUPRATES VIA TR-ARPES

Dario Armanno, INRS-EMT, Canada

Dario Armanno, Francesco Goto, Olivier Gingras, Jean Michel Parent, FranÁois LÈgarÈ, Adrien Longa, Gaetan Jargot, Nicolas Gauthier, Bradley Siwick, Antoine Georges, Andrew Millis, Fabio Boschini

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15:30 - 15:45 ULTRAFAST CONTROL OF ELECTRON-PHONON COUPLING IN LA1.6-XND0.4SRXCUO4 AND LA1.8-XEU0.2SRXCUO4

Naman Gupta, University of Waterloo, Canada

Martin Bluschke, Naman Gupta, Hoyoung Jang, Minjune Kim, Steef Smit, Byungjune Lee, Gyeongbo Kang, Peter Moen, Giorgio Levy, Sang-Youn Park, Minseok Kim, Dogeun Jang, Hyeongi Choi, Ronny Sutarto, Sunseng Pyon, Tomohiro Takayama, Hidenori Takagi, Jae-Hoon Park, Bruce Gaulin, David Hawthorn, Andrea Damascelli

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15:45 - 16:00 ELECTRIC-PULSE-INDUCED CHARGE DYNAMICS IN METALLIC AND SUPERCONDUCTING STATES OF THE HUBBARD MODEL

Takami Tohyama, Tokyo University of Science, Japan

Takami Tohyama

16:00 - 16:30 CHARGE-DENSITY-WAVE PHASE PROBE BY ULTRAFAST SPECTROSCOPY IN THE CHIRAL CRYSTAL (TASE4)2I

Soyeun Kim, DGIST (Daegu Gyeongbuk Institute of Science and Technology), South Korea

Soyeun Kim

TS39 QUANTUM ENTANGLEMENT IN SCES

ROOM: MONTREAL 6-7

Chair: Sorensen, Erik

14:00 - 14:30 QUANTUM ENTANGLEMENT IN A PURE STATE OF STRONGLY CORRELATED QUANTUM IMPURITY SYSTEMS AND NANOSTRUCTURED SYSTEMS

Yunori Nishikawa, Osaka Metropolitan University, Japan

Yunori Nishikawa, Tomoki Yoshioka

14:30 - 14:45 STRANGE METALICITY FROM THE ENTANGLEMENT AND ER=EPR

Sang-Jin Sin, Hanyang university, South Korea

Sang-Jin Sin, Yili Wang

14:45 - 15:00 MULTIPARTY ENTANGLEMENT IN QUANTUM SPIN LIQUIDS

Liuke Lyu, Department of Physics, University of Montreal, Canada

Liuke Lyu, Deeksha Chandorkar, Samarth Kapoor, So Takei, Andreas L‰uchli, Erik S¯rensen, William Witczak-Krempa

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15:00 - 15:15 MULTIPARTITE ENTANGLEMENT IN MEASUREMENT-ONLY CIRCUITS

James Allen, UniversitÈ de MontrÈal, Canada

James Allen, William Witczak-Krempa

15:15 - 15:30 REALIZING FRACTON ORDER FROM LONG-RANGE QUANTUM ENTANGLEMENT IN RYDBERG ATOM ARRAYS
Andriy Nevidomskyy, Rice University, United States of America
Andriy Nevidomskyy, Hannes Bernien, Alexander Canright

TS40 ANOMALOUS AND NONLINEAR HALL EFFECT

ROOM: MONTREAL 3

Chair: Ronning, Filip

14:00 - 14:30 ELECTRONIC FUNCTIONALITY OF TOPOLOGICAL MAGNETS FOR EMERGING MEMORY AND SENSING DEVICES
Tomoya Higo, Keio University, Japan
Tomoya Higo

14:30 - 14:45 SPIN SPIRAL-INDUCED ANOMALOUS HALL EFFECT IN SPIN-ORBIT COUPLED METALS
Shun Okumura, The University of Tokyo, Japan
Shun Okumura, Moritz Hirschmann, Yukitoshi Motome

14:45 - 15:00 GIANT TOPOLOGICAL HALL EFFECT IN THE ANTIFERROMAGNETIC METAL EUSNP
Dariusz Kaczorowski, Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Poland
Karan Singh, Tetiana Romanova, Orest Pavlosiuk, Piotr Winiewski, Dariusz Kaczorowski

15:00 - 15:15 ELECTRONIC STRUCTURE OF THE CANTED ANOMALOUS HALL ANTIFERROMAGNET EUPTSI_3
AndrÈ Deyerling, Technical University of Munich, Germany
AndrÈ Deyerling, Katharina M¸ller, Andreas Bauer, Wolfgang Simeth, Christian Franz, Christian Pfleiderer, Marc A. Wilde

15:15 - 15:30 CHIRALITY-RELATED ANOMALOUS HALL EFFECT IN PYROCHLORE MAGNETS
Hiroaki Ishizuka, Institute of Science Tokyo (fka Tokyo Institute of Technology), Japan
Hiroaki Ishizuka

15:30 - 15:45 OBSERVATION OF IN-PLANE ANOMALOUS HALL EFFECT IN WEYL SEMIMETAL FILMS
Masaki Uchida, Institute of Science Tokyo, Japan
Masaki Uchida, Ayano Nakamura, Shinichi Nishihaya, Hiroaki Ishizuka, Haruto Kaminakamura, Hsiang Lee, Yuki Deguchi, Markus Kriener

15:45 - 16:00 NONLINEAR HALL EFFECT DRIVEN BY SPIN-CHARGE-COUPLED MOTIVE FORCE

Kohei Hattori, Department of Applied Physics, University of Tokyo, Japan
Kohei Hattori, Hikaru Watanabe, Ryotaro Arita

TS41 TENSOR NETWORK AND MACHINE LEARNING METHODS

ROOM: MONTREAL 4-5

Chair: Yamaji, Youhei

17:00 - 17:15 EXPERIMENTAL RESULTS FROM AN AI-ACCELERATED WORKFLOW FOR SUPERCONDUCTOR DISCOVERY
Greg Stewart, University of Florida, United States of America
Greg Stewart, J. S. Kim, Jason Gibson, Ajinkya Hire, Phil Dee, Benjamin Geisler, Z. Li, James Hamlin, Peter Hirschfeld, R. Hennig

17:15 - 17:30 PROJECTED KRYLOV APPROACH FOR EFFICIENT MATRIX PRODUCT STATE BASED COMPUTATION OF REAL-FREQUENCY SPECTRAL FUNCTIONS
Oleksandra Kovalska, LMU, Germany
Oleksandra Kovalska, Andreas Gleis, Jan von Delft

17:30 - 17:45 TENSOR NETWORK METHODS WITH AUTOMATIC DIFFERENTIATION
Wei-Lin Tu, Keio University, Japan
Wei-Lin Tu

17:45 - 18:00 DENSITY MATRIX RENORMALIZATION GROUP-INSPIRED FRAMEWORK FOR EFFICIENT QUANTUM CIRCUIT OPTIMIZATION
Shohei Miyakoshi, Osaka University, Japan
Shohei Miyakoshi, Takanori Sugimoto, Hiroshi Ueda

18:00 - 18:15 ITINERANT FERROMAGNETISM IN THE HUBBARD MODEL
Rhine Samajdar, Princeton University, United States of America
Rhine Samajdar, Ravindra Bhatt

18:15 - 18:30 VARIATIONAL TENSOR NETWORK STUDY OF ANISOTROPIC KITAEV MODEL UNDER MAGNETIC FIELD
Ying-Jer Kao, National Taiwan University, Taiwan (Republic of China)
Ying-Jer Kao, Ke Hsu, Chang-Teng Lin, Wei-Lin Lin

18:30 - 18:45 TRANSPORT AND RECTIFICATION IN DRIVEN MANY-BODY TILTED SYSTEMS
Juan Jose Mendoza-Arenas, University of Pittsburgh, United States of America
Juan Jose Mendoza-Arenas, Joaquìn PeÒuela-Parra, Samuel Jacob, Laetitia Bettmann, Artur Lacerda, Krissia Zawadzki, John Goold, Stephen Clark

TS42 MAGNETISM AND HYBRIDIZATION IN ACTINIDE MATERIALS

ROOM: MONTREAL 1-2

Chair: Stockert, Oliver

17:00 - 17:30 PHYSICAL PROPERTIES OF THE NEW U-BASED KAGOME COMPOUNDS UV6SN6 AND UNB6SN6

Eric Bauer, Los Alamos National Laboratory, United States of America

Eric Bauer, Zachary Riedel, C. Kengle, Wolfgang Simeth, C. Lim, K. Allen, A. Schmidt, M. Ruf, D. Sheptyakov, Sean Thomas, Joe Thompson, Filip Ronning, Allen Scheie, J. Denlinger, S. Blanco-Canosa, C. Lane, Jianxin Zhu, Priscila F. S. Rosa

17:30 - 17:45 THEORY OF A NEMATIC PHASE OF A HEAVY FERMION COMPOUND: SYMMETRY BREAKING IN THE HYBRIDIZATION CHANNEL

Eduardo Miranda, The University of Campinas, Brazil

ValÈria Mattiello, Rafael Fernandes, Eduardo Miranda

17:45 - 18:00 MAGNETIC FIELD DEPENDENCE OF THE HALL EFFECT IN THE FRUSTRATED MAGNET UNI4B

Zachary Riedel, Los Alamos National Laboratory, United States of America

Zachary Riedel, Wolfgang Simeth, Sean Thomas, Eric Bauer

18:00 - 18:15 THEORY OF VALENCE-TO-CORE RIXS MEASURED AT THE URANIUM M5 EDGE: COMPARISON OF UO2 AND UF4

Jindrich Kolorenc, Institute of Physics, Czech Academy of Sciences, Czech Republic

Ondrej Stejskal, Jindrich Kolorenc

TS43 FOCUS SESSION: INSIGHTS FROM SCANNING TUNNELING MICROSCOPY - SUPERCONDUCTIVITY, STRANGE METALS, AND BEYOND

ROOM: MONTREAL 6-7

Chair: Wirth, Steffen

17:00 - 17:30 ADVANCEMENTS TO SCANNING TUNNELLING MICROSCOPY SIMULATIONS AND IT'S APPLICATION TO THE UNDERSTANDING OF UNCONVENTIONAL SUPERCONDUCTIVITY

Luke Rhodes, University of St Andrews, United Kingdom

Luke Rhodes

17:30 - 17:45 RESOLVING THE KAGOME ORIGIN OF THE STRANGE METALLICITY IN NI3IN

Jean C. Souza, Weizmann Institute of Science, Israel

Jean C. Souza, Moshe Haim, Ambikesh Gupta, Mounica Mahankali, Fang Xie, Yuan Fang, Lei Chen, Shiang Fang, Hengxin Tan, Minyong Han, Caolan John, Jingxu Zheng, Yiwen Liu, Binghai Yan, Joseph Checkelsky, Qimiao Si, Nurit Avraham, Haim Beidenkopf

17:45 - 18:00 OPEN QUANTUM SYSTEMS SIMULATION OF LANDAU-ZENER-ST¸CKELBERG INTERFEROMETRY IN A TWO-SPIN SYSTEM

Chau Bui, Ewha Womans University, South Korea

Chau Bui, Piotr Kot, Soo-hyon Phark

18:00 - 18:30 VISUALIZING INCOMMENSURATE INTER-VALLEY COHERENT STATES IN RHOMBOHEDRAL TRILAYER GRAPHENE

Nurit Avraham, Weizmann Institute of Science, Israel

Nurit Avraham, Yiwen Liu, Ambikesh Gupta, Youngjoon Choi, Yaar Vituri, Hari Stoyanov, Jiewen Xiao, Yanzhen Wang, Haibiao Zhou, Barun Barick, Takashi Taniguchi, Kenji Watanabe, Binghai Yan, Erez Berg, Andrea F. Young, Haim Beidenkopf

Friday, July 11, 2025

PLENARY SESSION

ROOM: MONTREAL 4-5

Chair: Batista, Cristian

08:15 - 09:00 ENGINEERING TOPOLOGICAL FLAT BANDS IN RHOMBOHEDRAL GRAPHENE

Shuyun Zhou, Tsinghua University, China (People's Republic of)

Shuyun Zhou

09:00 - 09:45 TOWARDS THE REALIZATION OF EXOTIC SPIN-ORBIT ENTANGLED PHASES IN 5D AND 4D TRANSITION METAL COMPOUNDS

Hidenori Takagi, Max Planck Institute for Solid State Research, Germany

Hidenori Takagi

TS45 MAGNETIC AND OPTICAL PROPERTIES OF 2D MATERIALS

ROOM: MONTREAL 4-5

Chair: Simeth, Wolfgang

10:15 - 10:30 QUASI-TWO-DIMENSIONAL MAGNETISM AND ANTIFERROMAGNETIC GROUND STATE IN LI2FESIO4

Hans-Henning Klauss, TU Dresden, Germany

Hans-Henning Klauss, Waldemar Hergett, Christoph Neef, Clemens Ritter,

Mahmoud Abdel-Hafiez, Felix Seewald, Mauritz W. Haverkort, R¸diger Klingeler

10:30 - 10:45 MAGNETIC FLUCTUATIONS AND LOCAL SUSCEPTIBILITY IN LOW DIMENSIONAL INTERMETALLIC SYSTEMS

Sarah Dunsiger, TRIUMF / Simon Fraser University, Canada

Sarah Dunsiger, Kolawole Akintola, Nasrin Azari, Andre Cote, Katherine Curvelo, David Evans, Alex Fang, Shayan Gheidi, Mulder Goeks, Jeonghun Lee, Gerald Morris, Shyam Sundar, Eundeok Mun, Jeff Sonier, Michael Yakovlev

10:45 - 11:00 COUPLINGS AND SPIN-WAVES IN SRCU2(BO3)2 AT HIGH PRESSURE

Mohamed Zayed, Carnegie Mellon University in Qatar, Qatar

Mohamed Zayed, Ellen Fogh

11:00 - 11:15 MAGNETIC STRUCTURE AND EXCITATIONS IN THE ANTIFERROMAGNET NA2BAMN(PO4)2

David Svitak, Charles University, Czech Republic

David Svitak, Nikolaos Biniskos, Michal Stekiel, Bruce Normand, Karin Schmalzl, Andreas M. L‰uchli, Flaviano Jose dos Santos, Petr Cermak

11:15 - 11:30 MAGNETIC-FIELD TUNING OF THE SPIN DYNAMICS IN THE VAN DER WAALS ANTIFERROMAGNET CUCRP2S6 (CCPS)

Joyal John Abraham, IFW Dresden, Germany

Joyal John Abraham, Yuliia Shemerliuk, Saicharan Aswartham, Bernd Buechner, Vladislav Kataev, Alexey Alfonsov

TS46 CRYSTAL FIELD EFFECTS IN SCES

ROOM: MONTREAL 1-2

Chair: Quito, Victor

10:15 - 10:45 DECOUPLING OF MAGNETIC AND ELECTRIC SUSCEPTIBILITIES IN A KRAMERS PARAMAGNET

Nicolas Gauthier, Institut National de la Recherche Scientifique (INRS) - EMT, Canada

Nicolas Gauthier, Andrea Bianchi, Michel Kenzelmann

10:45 - 11:00 INVESTIGATION OF CRYSTAL FIELDS IN THE CE2RH1-XIRXIN8 HEAVY FERMIONS THROUGH X-RAY ABSORPTION

Denise Sacramento Christovam, Max Planck for Chemical Physics of Solids, Germany

Denise Sacramento Christovam, Andrea Marino, Johannes Falke, Cheng-En Liu, Chun-Fu Chang, Chang-Yang Kuo, Oliver Stockert, Steffen Wirth, Maurits W. Haverkort, Gertrud Zwicknagl, Andrea Severing, Priscila F. S. Rosa, Ana Maria Caffer, Maria Helena Carvalho, Pascoal Pagliuso

11:00 - 11:15 DILUTION EFFECTS ON THE MAGNETIC PROPERTIES OF THE CE1-XLAXCUBI2 SERIES

Ana Maria Caffer, UNICAMP, Brazil

Ana Maria Caffer, G. S. Freitas, Maria Helena Carvalho, Henrique Pizzi, Derick Passos, Rodolfo Carvalho dos Santos, P. G. Pagliuso

11:15 - 11:30 MAGNETIC ORDER EVOLUTION ANTIFERROMAGNETIC TO FERROMAGNETIC IN THE PRCUBI(2-X)SB(X) SERIES

Henrique Pizzi, IFGW/UNICAMP, Brazil

Henrique Pizzi, Gabriel Silva Freitas, Samuel Gomes Mercena, Fellipe Baptista Carneiro, Ana Maria Caffer, Derick Passos, Rodolfo Carvalho dos Santos, Maria Helena Carvalho, Pascoal Pagliuso

11:30 - 11:45 BASIC PHYSICAL PROPERTIES AND PRECISE GROUND STATE OF HOCO2ZN20

Takafumi Kitazawa, Japan Atomic Energy Agency, Japan

Takafumi Kitazawa, Yasuyuki Shimura, Takahiro Onimaru, Yoshinori Haga, Hironori Sakai, Yoshifumi Tokiwa, Shinsaku Kambe, Etsuji Yamamoto, Yo Tokunaga

11:45 - 12:00 TUNING CE3+ 4F1 ELECTRONIC STATES AND MAGNETIC ANISOTROPY IN CECUBI2-XSBX: INSIGHTS FROM CU NMR

Davi Antonio Zau de Alvarenga, UNICAMP, Brazil

Davi Antonio Zau de Alvarenga, Gabriel Silva Freitas, Henrique Pizzi, Pascoal Pagliuso, Ricardo Urbano

TS47 FOCUS SESSION: KAGOME SUPERCONDUCTORS

ROOM: MONTREAL 6-7

Chair: Souza, Jean Carlo

10:15 - 10:45 CHARGE DENSITY WAVE ORDER IN KAGOME LATTICE MATERIALS

Ming Yi, William Marsh Rice University, United States of America

Ming Yi

10:45 - 11:00 PRESSURE AND SUBSTITUTION EFFECTS ON THE CHARGE-DENSITY-WAVE AND SUPERCONDUCTING TRANSITIONS IN CS1-XRBXV3SB5 KAGOME SUPERCONDUCTORS

Lucas Correa, Brazilian Synchrotron Light Laboratory (LNLS), Brazilian Center for Research in Energy and Materials (CNPEM), Brazil

Lucas Correa, Milton S. Torikachvili, Andre A. M. C. Silva, Leonardo O. Kutelak, Henrique F. Fabrelli, Eduardo M. Bittar, Ricardo Donizeth dos Reis

11:00 - 11:15 LOCAL PROBE INSIGHT INTO KAGOME METALS: SUPERCONDUCTIVITY AND CHARGE ORDER

Charles Mielke III, Microstructured Quantum Matter Department, Max Planck Institute for the Structure and Dynamics of Matter, Germany

Charles Mielke III, Zurab Guguchia

11:15 - 11:45 LARGE FERMI SURFACE IN VANADIUM-BASED KAGOME METALS - INSIGHTS FROM THE SHUBNIKOV-DE HAAS EFFECT UNDER PRESSURE

Swee K. Goh, The Chinese University of Hong Kong, Hong Kong

Swee K. Goh, Wei Zhang, Zheyu Wang, Tsz Fung Poon, Lingfei Wang, King Yau Yip, Chun Wai Tsang, Wenyan Wang, Ying Kit Tsui, Xinyou Liu, Jianyu Xie, Siu Tung Lam, Shanmin Wang, Kwing To Lai, David Graf, Alexandre Pourret, Gabriel Seyfarth, Georg Knebel, Wing Chi Yu

TS48 NOVEL MATERIALS, TECHNIQUES, AND APPLICATIONS

ROOM: MONTREAL 3

Chair: Higo, Tomoya

10:15 - 10:45 OPTICAL SIGNATURE OF ANOMALOUS HALL EFFECT IN A CORRELATED MAGNETIC WEYL SEMIMETAL

Leonardo Degiorgi, ETH Zurich, Department of Physics, Switzerland

Leonardo Degiorgi

10:45 - 11:00 QUANTUM COMPUTER ASSISTED STATE TOMOGRAPHY FROM NEUTRON SCATTERING OF MOLECULAR MAGNETS

Elizabeth Chipperfield, University of Kent, United Kingdom

Elizabeth Chipperfield, Jorge Quintanilla

11:00 - 11:15 ADVANCED COMPLEX MATERIALS FOR MULTIDISCIPLINARY PHYSICS: LAR PURIFICATION FOR LBNF-DUNE - BRAZIL IN-KIND CONTRIBUTION

P. G. Pagliuso, "Gleb Wataghin", Institute of Physics, UNICAMP, Brazil

Maria Helena Carvalho, Ana Maria Caffer, R. G. GonÁalves, Henrique Pizzi, Derick Passos, C. Reis, I. O. Mazali, D. Cardoso, R. Soccol, P. Bianchi, D. Noriler, C. R. A. dos Santos, M. Fontes, D. Correia, H. da Motta, F. Demolin, A. Augusto, R. Doubnik, D. Montanari, T. P. M. Alegre, A. A. Machado, E. Segreto, C. Adriano, E. Assaf, J. M. Assaf, P. G. Pagliuso

11:15 - 11:30 OBSERVATION AND EXTERNAL FIELD CONTROL OF LINEAR MAGNETOELECTRIC EFFECT DOMAINS IN CR2O3 USING POLARIZING MICROSCOPY

Yuto Kinoshita, The University of Tokyo, The Institute for Solid State Physics, Japan

Yuto Kinoshita, Masashi Tokunaga

11:30 - 11:45 MAGNETOELECTRIC COUPLING IN THE STRETCHED DIAMOND LATTICE OF TBTAO4

Shiyu Deng, Institut Laue-Langevin (ILL), France

Xiaotian Zhang, Lukasz Domanski, Nicola D Kelly, Cheng Liu, Shiyu Deng, Denis Sheptyakov, Jiasheng Chen, Jason Lashley, Kunduz Turekhanova, Magzhan Abdilla, Si·n E. Dutton, Siddharth Saxena

11:45 - 12:00 SIZE-RESTRICTED MAGNETO-TRANSPORT IN THE DELAFOSSITE METALS

Michal Moravec, MPI for Chemical Physics of Solids, Germany

Michal Moravec

SUMMARY SESSION

ROOM: MONTREAL 4-5

Chair: Bianchi, Andrea

Adriano, Cris

12:00 - 12:20 THEORETICAL SUMMARY

12:20 - 12:40 EXPERIMENTAL SUMMARY

12:40 - 12:55 INVITATION TO SCES2026

12:55 - 13:00 CLOSING REMARKS

POSTER PRESENTATIONS - PRÉSENTATIONS D'AFFICHES

Monday, July 7, 2025

FROM 12:00 TO 14:00

LUNCH/POSTER SESSION 1

ROOM : ST LAURENT

Poster Award Committee: Pascoal Pagliuso, Sarah Dunsiger, and Soyeun Kim

Poster 1 SURFACE AND DENSITY OF STATES OF UTE2 AT HIGH MAGNETIC FIELDS
Pablo Garcìa Talavera, Universidad AutÛnoma de Madrid, Spain
Pablo Garcìa Talavera

Poster 3 ELASTIC RESPONSES NEAR THE CRITICAL ENDPOINT OF UTE2 IN HIGH MAGNETIC FIELDS
Fanchun Wei, Hokkaido University, Japan
Fanchun Wei, Keito Yoshida, Hiroyuki Hidaka, Tatsuya Yanagisawa, Ruo Hibino, Hiroshi Amitsuka, Atsuhiko Miyata, Ryosuke Kurihara, Qiaozhi Xu, Sheng Ran, Christopher Broyles, Joachim Wosnitza, Sergei Zherlitsyn, Jeremy Sourd, Dai Aoki, Motoi Kimata, Satoshi Awaji, Shintaro Nakamura

Poster 5 SCANNING TUNNELING SPECTROSCOPY AT A MAGNETIC QUANTUM CRITICAL POINT
Miguel ¡gueda, Universidad AutÛnoma de Madrid, Spain
Miguel ¡gueda, Hermann Suderow

Poster 7 ALL-OPTICAL HELICITY-DEPENDENT SWITCHING IN NICO2O4 THIN FILMS
Ryunosuke Takahashi, University of Hyogo, Japan
Ryunosuke Takahashi, Yan Lu-guen, Suguru Nakata, Junta Igarashi, Julius Hohlfeld, Gregory Malinowski, Lingling Xie, Daisuke Kan, Yuichi Shimakawa, Stephane Mangin, Hiroki Wadati

Poster 9 CHARGE DENSITY WAVE IN INTERMETALLIC OXIDES R5PB3O (R = LA AND CE)
Rafaela Penacchio, Institute of Physics, University of S„o Paulo/Ames National Laboratory, United States of America
Rafaela Penacchio

Poster 11 EXOTIC SUPERFLUID PHASE TRANSITION IN A NON-HERMITIAN HUBBARD MODEL ON HONEYCOMB AND HYPERCUBIC LATTICES
Soma Takemori, Department of Physics, Institute of Science Tokyo, Japan
Soma Takemori, Kazuki Yamamoto, Akihisa Koga

Poster 13 MULTI-FREQUENCY INTERFERENCE EFFECTS ON SHAPIRO STEPS IN CDW SYSTEMS
Yu Funami, Osaka University, Japan
Yu Funami, Kazushi Aoyama

Poster 15 THERMAL PROPERTIES OF THE SINGLE-CRYSTALLINE PEROVSKITE BABIO3
Alexandre Henriques da Silva, University of S„o Paulo, Brazil
Alexandre Henriques da Silva, Mariana Saraiva Le„o Lima, Walber Hugo de Brito, Valentina Martelli

Poster 17 THERMAL TRANSPORT RECTIFICATION IN DRIVEN QUANTUM SYSTEMS
Joaquin PeÒuela-Parra, University of Pittsburgh, United States of America
Joaquin PeÒuela-Parra, Juan Jose Mendoza-Arenas

Poster 19 ULTRAFAST PHONONIC DRIVING OF A LOW-DIMENSIONAL QUANTUM SPIN SYSTEM
Leonie Spitz, Institute for Quantum Electronics, ETH Z¸rich, Switzerland
Leonie Spitz, Eugenio Paris, Sananda Biswas, Baptiste Demazure, Nelson Hua, Stanislav Nikitin, Flavio Giorgianni, Thorsten Schmitt, Roser ValentÌ, Bruce Normand, Christian R¸egg

Poster 21 STUDYING THE ROLE OF GREEN'S FUNCTION ZEROS IN THE CLASSIFICATION OF STRONGLY CORRELATED TOPOLOGICAL MATTER
Theo Dionne, UniversitÈ de Sherbrooke, Canada
Theo Dionne, Maia Garcia Vergniory

Poster 23 ULTRAFAST PHOTOINDUCED PHASE CHANGE IN SNSE
Benjamin Dringoli, McGill University, Canada
Benjamin Dringoli, Mark Sutton, Zhongzhen Luo, Mercouri Kanatzidis, David Cooke

Poster 25 ANALYSIS OF QUANTUM SPIN LIQUID IN THE INTEGER-SPIN KITAEV MAGNETS USING THE SCHWINGER BOSON APPROACH
Daiki Sasamoto, Tohoku University, Japan
Daiki Sasamoto, Joji Nasu

Poster 27 EFFECTS OF KITAEV INTERACTION IN F-ELECTRON SYSTEMS
Bogeng Wen, Department of Physics, University of Toronto, Canada
Bogeng Wen, Hae-Young Kee

Poster 29 ROLE OF SITE DISORDER IN GOVERNING THE MAGNETIC PROPERTIES OF CU2IRO3
Priyanka Yadav, Indian Institute of Science Education and Research Mohali, India, India
Priyanka Yadav, Yogesh Singh

Poster 31 UNVEILING NEW MAGNETIC PHASES IN AN EXTENDED KITAEV MODEL ON A 3D HYPERHONEYCOMB LATTICE
Kiyu Fukui, The University of Tokyo, Japan
Kiyu Fukui, Yukitoshi Motome

Poster 33 COMPETING INSTABILITIES OF THE KITAEV-KONDO MODEL
Jennifer Lin, University College London, United Kingdom
Jennifer Lin, Frank Kruger

Poster 35 EFFECTIVE POTENTIAL AND CRITICAL BEHAVIOR IN FRACTIONAL-DIMENSIONAL O(N) SCALAR FIELD THEORIES WITH MARGINAL INTERACTIONS
Said Sakhi, American University of Sharjah, United Arab Emirates
Said Sakhi

Poster 37 MAGNETIC PROPERTIES OF ERB2 AND THE INFLUENCE OF PRESSURE
Anh Tong, Technical University of Munich, Germany
Anh Tong, Daria Nuzhina, Christoph Resch, Georg Benka, Andreas Bauer, Christian Pfleiderer

Poster 39 QUANTUM CRITICAL FLUCTUATIONS IN ITINERANT-ELECTRON MAGNETIC SYSTEMS
Peter Einarsson Nielsen, University of Cambridge, United Kingdom
Peter Einarsson Nielsen, Stephen Rowley

Poster 41 EFFECT OF COLLECTIVE MODE EXCITATIONS ON LINEAR AND NONLINEAR OPTICAL RESPONSES IN TOPOLOGICAL SUPERCONDUCTORS
Hiroto Tanaka, Department of Physics, Graduate School of Science, Kyoto University, Japan
Hiroto Tanaka, Youichi Yanase

Poster 43 FROM WEAK TO MODERATELY STRONG COUPLING SUPERCONDUCTIVITY IN FILLED SKUTTERUDITES SRPT4GE12-XSBX
Ernst Bauer, TU Wien, Institute of Solid State Physics, Austria
Patrick Heinrich, Herwig Michor, Andriy Grytsiv, Peter Rogl, Ernst Bauer

Poster 45 SPECTROSCOPIC EVIDENCE OF ANISOTROPIC SUPERCONDUCTING GAP SYMMETRY IN BILAYER NICKELATE UNDER PRESSURE
Seokmin Choi, Sungkyunkwan University, South Korea
Seokmin Choi, Ziyu Cao, Tuson Park

Poster 47 THE ELECTRONIC STRUCTURE OF UTE2
Theodore Weinberger, University of Cambridge, United Kingdom
Theodore Weinberger, Zheyu Wu, Andrej Cabala, David Grad, Yurii Skourski, Vladimìr Sechovsky, Gilbert Lonzarich, Michal Valiska, Friedrich Grosche, Alexander Eaton

Poster 49 THEORETICAL STUDY OF SPIN-LATTICE RELAXATION FOR SUPERCONDUCTING STATE IN UTE2
Shingo Haruna, Department of Material Science, University of Hyogo, Japan
Shingo Haruna, Koki Doi, Takuji Nomura, Hirono Kaneyasu

Poster 51 THERMAL HALL CONDUCTIVITY OF PRASEODYMIUM-SUBSTITUTED YBCO
Thomas Oustric, UniversitÈ de Sherbrooke, Canada

Thomas Oustric, Jordan Baglo, Emma Campillo Munoz, Munkhtuguldur Altangerel, Cailtin Duffy, Sven Badoux, Cyril Proust, Louis Taillefer

Poster 53 THIRD HARMONIC GENERATION IN MULTIBAND ANISOTROPIC SUPERCONDUCTORS
Saurabh Maiti, Concordia University, Canada
Saurabh Maiti, Surajit Sarkar, Igor Benek-Lins

Tuesday, July 8, 2025

FROM 12:00 TO 14:00

LUNCH/POSTER SESSION 2

ROOM : ST LAURENT

Poster Award Committee: Judit Romhanyi, Chris Mizzi, Ricardo Urbano

Poster 1 ELASTIC RESPONSE OF ANOMALOUS HALL CRYSTALS
Mark R. Hirsbrunner, Department of Physics, University of Toronto, Canada
Mark R. Hirsbrunner, FÈlix Desrochers, Joe Huxford, Adarsh S. Patri, Senthil Todadri, Yong Baek Kim

Poster 3 FREQUENCY-DOMAIN SYMMETRY DESCRIPTION OF FLOQUET INDUCED NODAL POINT, LINE AND SURFACE
Ren Niimi, Hiroshima Unversity, Japan
Ren Niimi, Arata Tanaka

Poster 5 UNIAXIAL PRESSURE TUNING OF THE ANOMALOUS HALL EFFECT IN MN3GE
Gustavo Lombardi, Max-Planck-Institut f¸r Chemische Physik fester Stoffe, Germany
Gustavo Lombardi, Leonardo Oparacz Kutelak, Mario Moda Piva, Vinìcius Frehse, Guilherme Calligaris, Kaustuv Manna, Claudia Felser, Ricardo Donizeth dos Reis, Michael Nicklas

Poster 7 FIRST-PRINCIPLES STUDY ON THE QUASI-PARTICLE SPECTRUM IN TRANSPARENT SUPERCONDUCTOR LITI2O4
Tatsuki Oda, Kanazawa University, Japan
Tatsuki Oda, Haruyu Miwa, Takao Kotani, Masao Obata

Poster 9 CRYOGENIC MAGNETIC REFRIGERATION DOWN TO 0.3 K IN INTERMETALLIC COMPOUNDS YBCO2 WITH HIGH YB DENSITY
Ryoma Yokoo, Graduate School of Advanced Science and Engineering, Hiroshima University, Japan
Ryoma Yokoo, Yasuyuki Shimura, Kanta Watanabe, Takahiro Onimaru, Naohito Tujii

Poster 11 THE PHYSICAL PROPERTIES OF HEAVY FERMION CE2PT6AL12SI3 AT LOW TEMPERATURE
Kyugo Ota, University of Toyama, Japan
Kyugo Ota, Ming Liu, Shuai Zhang, Yoshinori Haga, Yuji Matsumoto

Poster 13 QUANTUM SCATTERING INTERFERENCE PROCESS THAT ENHANCES THE THERMOELECTRIC EFFICIENCY IN QUANTUM DOT SYSTEMS: ITS MANIFESTATION IN PHOTOEMISSION SPECTROSCOPY AND INVERSE PHOTOEMISSION SPECTROSCOPY
Roberto Franco PeÒaloza, Colombia National University (Bogot·), Colombia
Roberto Franco PeÒaloza, Jereson Silva-Valencia, Edwin Ramos-RodrÌguez, Ronald Santiago Cortes Santamaria, Marcos Sergio Figueira Da Silva

Poster 15 ANOMALOUS HALL EFFECT ARISING FROM ANTIFERROMAGNETIC STRUCTURE IN AS-SUBSTITUTED NBMNP NEAR ROOM TEMPERATURE
Yuki Arai, Kobe University, Japan
Yuki Arai, Akira Nakamura, Hisashi Kotegawa, Hideki Tou, Hitoshi Sugawara

Poster 17 SINGLE CRYSTAL GROWTH AND PHYSICAL PROPERTIES OF FERROMAGNET MNCOGE AND HELICAL MAGNET MNNIGE
Shota Nakamura, Nagoya Institute of Technology, Japan
Shota Nakamura, Mirano Sakakibara, Shigeo Ohara

Poster 19 MAGNETIC PROPERTIES IN POLAR MAGNETS BA6LA2M4O15 (M = FE, CO)
Takumi Shirasaki, Sophia University, Japan
Takumi Shirasaki, Taichi Ishikawa, Hideki Kuwahara

Poster 21 55MN NUCLEAR MAGNETIC RESONANCE STUDY ON ANTIFERROMAGNETIC A-MN
Masahiro Manago, Shimane University, Japan
Masahiro Manago, Gaku Motoyama, Kiyotaka Miyoshi, Shijo Nishigori, Kenji Fujiwara, Kazuto Akiba, Shingo Araki, Tatsuo Kobayashi, Hisatomo Harima

Poster 23 ALTERMAGNETIC INSTABILITES FROM QUANTUM GEOMETRY
Niclas Heinsdorf, Quantum Matter Institute, University of British Columbia, Canada, Canada
Niclas Heinsdorf

Poster 25 EFFICIENT ADIABATIC DEMAGNETIZATION REFRIGERATION TO BELOW 50 MK WITH ULTRAHIGH-VACUUM-COMPATIBLE YTTERBIUM DIPHOSPHATES AYBP2O7 (A=NA, K)
K. M. Ranjith, Laboratoire National des Champs MagnÈtiques Intenses-EMFL, CNRS, UniversitÈ Grenoble Alpes, France
Arjun Unnikrishnan, K. M. Ranjith, A. Jesche, F. Hirschberger, D. D. Sarma, Philipp Gegenwart

Poster 27 INELASTIC NEUTRON SCATTERING STUDY ON CRYSTALLINE ELECTRIC FIELD EXCITATIONS AND THE MAGNETIC ANISOTROPY IN AN EFFECTIVE SPIN-1/2 ZIGZAG CHAIN COMPOUND YBCUS2
Takahiro Onimaru, Hiroshima University, Japan
Takahiro Onimaru

Poster 29 INVERSE SINGLE-SIDED MAGNET
Takayuki Ishitobi, Japan Atomic Energy Agency, Japan
Takayuki Ishitobi

Poster 31 MAGNETIC ANOMALIES IN THE HEXAGONAL LAVES PHASE FERROMAGNET
Taiki Shiotani, Department of Materials Science and Engineering, Kyoto University, Japan, Japan
Taiki Shiotani, Takeshi Waki, Yoshikazu Tabata, Hiroyuki Nakamura

Poster 33 MAGNETIC PHASE TRANSITION AND MAGNETIC FRUSTRATION IN ZNYB2S4 WITH A SAWTOOTH YB CHAIN
Shinji Okada, Hiroshima University, Japan
Shinji Okada, Hiroto Suzuki, Nonoka Higa, Yasuyuki Shimura, Takahiro Onimaru

Poster 35 PRESSURE EFFECTS ON THE PHASE TRANSITION IN AN YB-BASED SEMICONDUCTOR YBCUS2 WITH ZIGZAG CHAINS STUDIED BY SPECIFIC-HEAT MEASUREMENT
Ken Makimoto, Graduate School of Advanced Science and Engineering, Hiroshima University, Japan
Ken Makimoto, Hiroto Suzuki, Yudai Ohmagari, Takahiro Onimaru, Kazunori Umeo

Poster 37 QUANTUM SPIN SUPERSOLIDS AND LIQUIDS IN TRIANGULAR LATTICE MAGNETS
Andriy Nevidomskyy, Rice University, United States of America
Andriy Nevidomskyy

Poster 39 RAMAN SCATTERING AS A PROBE FOR TUNING MAGNETIC QUASIPARTICLES IN DESIGNER STRUCTURES THROUGH ION BEAM IRRADIATION
Simranjeet Kaur, Indian Institute of Technology Delhi, India
Simranjeet Kaur

Poster 41 POSSIBLE QUANTUM SPIN LIQUID STATE IN A TRICLINIC NATURAL MINERAL HENMILITE CA2CU(OH)4[B(OH)4]
Ankit Labh, Charles University, Czech Republic
Ankit Labh, Jakub Sebesta, Dominik Legut, Ross Harvey Colman, Adam Berlie, Johanna K. Jochum, Petr Cermak

Poster 43 STATIC AND DYNAMIC MAGNETIC PROPERTIES IN THE LI-RICH ANTIPEROVSKITE (LI2FE)CHO (CH = S,SE)
Hans-Henning Klauss, TU Dresden, Germany, Germany
Hans-Henning Klauss, Felix Seewald, Tim Schulze, Nico Gr‰fller, Mohamed Abdullah Abdulla Mohamed, Sabine Hampel, Lennard Singer, R¸diger Klingeler, Hans-Joachim Grafe

Poster 45 TOWARDS A GLOBAL PHASE DIAGRAM OF CE-BASED DIPOLAR-OCTUPOLAR PYROCHLORE MAGNETS UNDER MAGNETIC FIELDS
Zhengbang Zhou, University of Toronto, Canada
Zhengbang Zhou, Yong-Baek Kim

Poster 47 TUNING THE OCTUPOLAR DEGREES OF FREEDOM IN THE ALTERMAGNETIC CANDIDATE MNF2 BY STRAIN AND MAGNETIC FIELD

Rahel Ohlendorf, Max Planck Institute for Chemical Physics of Solids, Germany

Rahel Ohlendorf, Hilary Noad, J˙rg Schmalian, Elena Hassinger, Andrew Mackenzie, Elena Gati

Poster 49 ROLE OF ELECTRON INTERACTION AND TILTING ANGLE IN SR3IR2O7: A MODEL AND FIRST-PRINCIPLES STUDY

Beomjoon Goh, Seoul National University, South Korea

Beomjoon Goh, Hongchul Choi, Ji Hoon Shim, Seung-Sup Lee

Wednesday, July 9, 2025

FROM 12:00 TO 14:00

LUNCH/POSTER SESSION 3

ROOM : ST LAURENT

Poster Award Committee: Jacopo Fiore, Shiyu Deng, Pontus Laurell

Poster 1 EXCEPTIONAL POINTS IN AN INTERACTING OPEN QUANTUM SYSTEM

Musashi Kato, Kyoto University, Japan

Musashi Kato, Tsuneya Yoshida

Poster 3 MAGNETOTRANSPORT PROPERTIES IN A TOPOLOGICAL SEMIMETAL V1/3NBS2 WITH CHIRAL SYMMETRIES AND ANTIFERROMAGNETISM: GIANT PLANAR HALL EFFECT AND QUANTUM OSCILLATIONS

Shota Okazaki, Materials and structures Laboratory / Research Center for Autonomous Systems Materialogy, Institute of Science Tokyo, Japan

Shota Okazaki, Takao Sasagawa

Poster 5 PLASMARON ANALYSIS FROM FIRST-PRINCIPLES IN TRANSITION-METAL-OXIDE SUPERCONDUCTOR LITI2O4

Haruya Niwa, Kanazawa University, Japan

Haruya Niwa

Poster 7 ANISOTROPIC COLLAPSE OF ELECTRONIC CORRELATIONS IN UGE2 UNDER HIGH MAGNETIC FIELD

Somesh Kalaiarasan, Laboratoire National des Champs MagnÈtiques Intenses-EMFL, CNRS, Univ. Grenoble Alpes, INSA-T, Univ. Toulouse 3, 31400 Toulouse, France, France

Somesh Kalaiarasan, Tristan Thebault, Dai Aoki, Fabienne Duc, Georg Knebel, Daniel Braithwaite, William Knafo

Poster 9 SCALING THEORY AND LANDAU FREE ENERGY FOR THE METAMAGNETISM OF THE HEAVY FERMION COMPOUND CERU_2SI_2

Kazuyuki Matsumoto, Hokkaido University of Education - Asahikawa, Japan
Kazuyuki Matsumoto

Poster 11 X-RAY DIFFRACTION STUDIES OF CHARGE DENSITY WAVE ORDERS IN CABE2GE2 TYPE STRUCTURE

Fusako Kon, Graduated School of Science, Hokkaido University, Japan
Fusako Kon, Ryuta Hamabata, Moyu Kato, Izumi Naito, Chihiro Tabata, Hironori Nakao, Daisuke Okumura, Hiroshi Amitsuka, Hiroyuki Yoshida

Poster 13 HIGH MAGNETIC FIELD EFFECT ON EXCITONIC PHASE IN THE TWO-ORBITAL SPINLESS HUBBARD MODEL

Naoya Ohta, Tohoku University, Japan
Naoya Ohta, Joji Nasu

Poster 15 LONG-RANGE MULTIPARTITE ENTANGLEMENT NEAR MEASUREMENT-INDUCED TRANSITIONS

SÈbastien Avakian, McGill University, Canada
SÈbastien Avakian, Tami Pereg-Barnea, William Witczak-Krempa

Poster 17 EXTENDED MAGNETIC PHASE DIAGRAM OF UNIAL

Karel Prokes, QM-IQM, Helmholtz-Zentrum Berlin, Germany
Karel Prokes, Vladimir Sechovsky

Poster 19 OBSERVATION OF MAGNETIC MEMORY EFFECTS IN UPT2SI2 AND THPT2SI2 EXHIBITING CDW ORDER

Ryuta Hamabata, Graduated School of Science, Hokkaido University, Japan, Japan

Ryuta Hamabata, Wenhao Guo, Fusako Kon, Hiroyuki Hidaka, Tatsuya Yanagisawa, Hiroshi Amitsuka

Poster 21 CORRELATION EFFECTS ON MAGNETO-TRANSPORT PROPERTIES OF ACTINIDES

Daniel Staros, Los Alamos National Laboratory, United States of America
Daniel Staros, Roxanne Tutchton, Jianxin Zhu

Poster 23 EFFECTS OF FLAT-BAND PRESERVING DISORDERS ON SUPERCONDUCTIVITY IN KAGOME HUBBARD MODEL

Jicheol Kim, Gwangju Institute of Science and Technology, South Korea
Jicheol Kim, Dong-Hee Kim

Poster 25 HIGHER BERRY CURVATURE OF MATRIX PRODUCT STATES

Ken Shiozaki, Yukawa Institute of Theoretical Physics, Kyoto University, Japan
Ken Shiozaki

Poster 27 NUMERICAL FULFILLMENT OF THE U(1) WARD IDENTITY AND THE PARQUET EQUATIONS FOR REAL-FREQUENCY CORRELATION FUNCTIONS FROM THE MULTIPOINT NUMERICAL RENORMALIZATION GROUP

Nepomuk Ritz, Ludwig-Maximilians-Universit%ot M¸nchen, Germany
Nepomuk Ritz, Anxiang Ge, Mathias Pelz, Jan von Delft, Fabian Kugler

Poster 29 STRANGE DIFFUSIVITY IN HALF-FILLED TWO-DIMENSIONAL HUBBARD MODEL

Youngmin Eom, DGIST, South Korea

Youngmin Eom, Igor S. Tupitsyn, Nikolay V. Prokof'ev, Boris Svistunov, Evgeny Kozik, Aaram J. Kim

Poster 31 SUB-BATHS REPRESENTATION IN CLUSTER DYNAMICAL MEAN-FIELD THEORY

Antoine de Lagrave, DÈpartement de Chimie, Biochimie et Physique, Institut de Recherche sur lHydrogËne, UniversitÈ du QuÈbec ‡ Trois-RiviËres, Trois-RiviËres, QuÈbec, Ca, Canada

Antoine de Lagrave

Poster 33 THEORY OF X-RAY PHOTOEMISSION SPECTROSCOPY MAGNETIC CIRCULAR DICHROISM FOR ITINERANT FERROMAGNETIC 3D TRANSITION METALS

Hiroki Kobayashi, University of Hyogo, Japan

Hiroki Kobayashi, Aimi Ueki, Takuji Nomura

Poster 35 VERTEX CORRECTIONS INCLUSIONS IN THE IMPROVED TWO-PARTICLE SELF-CONSISTENT APPROACH FOR OPTICAL CONDUCTIVITY CALCULATIONS

JÈrÙme Leblanc, UniversitÈ de Sherbrooke, Canada

JÈrÙme Leblanc, Camille Lahaie, Dominic Bergeron, AndrÈ-Marie Tremblay

Poster 37 ELASTIC PROPERTIES AND INSTABILITIES OF ANOMALOUS HALL CRYSTALS IN RHOMBOHEDRAL MULTILAYER GRAPHENE

FÈlix Desrochers, University of Toronto, Canada

FÈlix Desrochers, Mark R. Hirsbrunner, Joe Huxford, Adarsh S. Patri, Senthil Todadri, Yong Baek Kim

Poster 39 SPATIAL EVOLUTION OF THE ELECTRONIC STATES NEAR A DEFECT IN 1T-TAS2

Yuto Nakashima, Tokyo University of Science, Japan

Yuto Nakashima, Sora Kobayashi, Atsushi Nomura, Hideaki Sakata

Poster 41 OUT OF PLANE LOWER CRITICAL FIELD OF THE PUTATIVE CHIRAL SUPERCONDUCTOR 4HB-TAS2

Jaroslaw Juraszek, Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Poland

Jaroslaw Juraszek, Yannick M. Thiebes, Lukasz Luszynski, Waseem Afzal, Marcin Konczykowski, Rainer Niewa, Tomasz Cichorek

Poster 43 RESISTIVITY MEASUREMENTS UNDER PRESSURE USING A SINGLE CRYSTAL OF SUPERCONDUCTOR CASB2

Shumpei Oguchi, Kyoto university, Japan

Shumpei Oguchi, Shunsaku Kitagawa, Kenji Ishida, Atsutoshi Ikeda, Yoshiteru Maeno

Poster 45 SUPERCONDUCTIVITY AND CHARGE DENSITY WAVES IN 4HB AND 4HC POLYMORPHIC PHASES OF TASE2 SINGLE CRYSTALS

Takao Sasagawa, Institute of Science Tokyo, Japan

Takao Sasagawa, Tomoki Maeda

Poster 47 SUPERCONDUCTIVITY IN KAGOME METALS (AV3SB5) DRIVEN BY FLUCTUATING LOOP CURRENTS

Asimpunya Mitra, Department of Physics, University of Toronto, Canada
Asimpunya Mitra, Yong Baek Kim

Poster 49 TOPOLOGICAL SUPERCONDUCTIVITY WITH MIXED SINGLET-TRIPLET PAIRING IN TWISTED WSE2 BILAYER FROM THEORETICAL PERSPECTIVE

Michal Zegrodnik, Academic Centre for Materials and Nanotechnology, Poland
Michal Zegrodnik, Waseem Akbar, Andrzej Biborski, Louk Rademaker

Poster 51 VALLEY POLARIZATION, MAGNETIZATION, AND SUPERCONDUCTIVITY IN BILAYER GRAPHENE NEAR THE VAN HOVE SINGULARITY

Alex Friedlan, University of Toronto, Canada
Alex Friedlan, Heqiu Li, Hae-Young Kee

Thrusday, July 10, 2025

FROM 12:00 TO 14:00

LUNCH/POSTER SESSION 4

ROOM : ST LAURENT

Poster Award Committee: Eric Bauer, Kenji Ishida, Silke Paschen

Poster 1 ANOMALOUS TEMPERATURE DEPENDENCE OF QUANTUM OSCILLATIONS IN IV-VI SEMICONDUCTOR SNTE

Masaki Kondo, The Institute for Solid State Physics, The University of Tokyo, Japan
Masaki Kondo, Kenta Sudo, Ryosuke Kurihara, Masashi Tokunaga

Poster 3 STATIC AND DYNAMIC MAGNETIC PROPERTIES OF MAGNETIC TOPOLOGICAL MATERIAL A-EUP3 STUDIED BY 31P-NMR

Takuto Fujii, Graduate School of Material Science, University of Hyogo, Japan
Takuto Fujii, Kentaro Tsukamoto, Shun Yokoyama, Yusuke Nakai, Alex Hiro Mayo, Tadachika Kaneko, Motoi Kiamta, Hidefumi Takahashi, Shintaro Ishiwata, Takeshi Mito

Poster 5 TUNING OF ELECTRIC FIELD GRADIENT BY RARE EARTH ELEMENT IN RALSI WEYL SEMIMETAL CANDIDATES

Rajib Sarkar, Technical University of Dresden, Germany
Rajib Sarkar

Poster 7 UNIAXIAL STRAIN EFFECTS ON THE METALLIZATION AND MAGNETIC TRANSITION OF EUB6

Leonardo Oparacz Kutelak, CNPEM - Centro Nacional de Pesquisa em Energia e Materiais, Brazil

Leonardo Oparacz Kutelak, Mario Moda Piva, You-Sheng Li, Lucas Correa, Priscila Ferrari Silveira Rosa, Tulio Costa Rizuti da Rocha, Thiago Jose de Almeida Mori, Michael Nicklas, Ricardo Donizeth dos Reis

Poster 9 INVESTIGATING THE IMPACT OF LIQUID ORDER ON THE ELECTRONIC STRUCTURE

Do Yun Park, University of Waterloo, Canada

Do Yun Park, Sae Hee Ryu, Minjae Huh, Keun Su Kim

Poster 13 ELASTIC PROPERTIES OF THE CUBIC PROS2SN2ZN18 INVESTIGATED BY ULTRASOUND MEASUREMENTS

Shuto Tamura, Iwate University, Japan

Shuto Tamura, Kazuhei Wakiya, Mitsuteru Nakamura, Masahito Yoshizawa, Yoshiki Nakanishi

Poster 15 ELECTRONIC TRANSPORT PROPERTIES OF ORTHORHOMBIC COMPOUND CE2CUGE6

Takuya Komoda, Department of Physics, Graduate School of Science, Kobe University, Japan

Takuya Komoda, Shinki Inoue, Eiichi Matsuoka, Hitoshi Sugawara

Poster 17 MAGNETIC ANISOTROPY IN NONCENTROSYMMETRIC FERROMAGNET CEMGPD

Kou Onishi, Kobe University, Japan

Kou Onishi, Hitoshi Sugawara, Eiichi Matsuoka

Poster 19 VERIFICATION OF THE EHRENFEST RELATION FOR LOW-TEMPERATURE ORDERINGS IN CECOSI

Hiroyuki Hidaka, Graduate School of Science, Hokkaido University, Japan

Hiroyuki Hidaka, Tatsuya Yanagisawa, Hiroshi Amitsuka, Hiroshi Tanida, Takayuki Ishitobi

Poster 21 ELECTRONIC STRUCTURE OF YBCU5-XALX STUDIED BY PHOTOEMISSION SPECTROSCOPY

Hitoshi Sato, Hiroshima University, Japan

Hitoshi Sato, Masashi Arita, Kenya Shimada, Kojiro Mimura, Shigenori Ueda, Naohito Tsujii

Poster 23 FINE TUNING EUPD2-XSI2+X AND SUBSTITUTED EUPD2SI2 TOWARDS THE CRITICAL ENDPOINT

Michelle Ocker, Goethe University Frankfurt, Germany

Michelle Ocker, Robert M˚ller, Marius Perters, Cornelius Krellner, Kristin Kliemt

Poster 25 UNVEILING AN ANOMALOUS RELAXATION MECHANISM IN TOPOLOGICAL KONDO INSULATOR SMB6 INVESTIGATED BY NMR MEASUREMENTS

Tomoki Nishikawa, Graduate School of Science, University of Hyogo, Japan

Tomoki Nishikawa, Shogo Yoshida, Takuto Fujii, Yusuke Nakai, Fumitoshi Iga, Takuma Ishiguri, Hiroaki Shishido, Takeshi Mito

Poster 27 SE SUBSTITUTION EFFECTS ON MULTIPLE CDW STATES IN CUTE
Sora Kobayashi, Tokyo University of Science, Japan
Sora Kobayashi, Ayumu Sato, Yuya Koizumi, Hideaki Sakata

Poster 29 STRUCTURAL PHASE TRANSITION AND FLAT BAND IN CUBIC NBSEI
Keita Kojima, Institute for Solid State Physics, University of Tokyo, Japan
Keita Kojima, Youichi Yamakawa, Shunsuke Kitou, Ryutaro Okuma, Yoshihiko Okamoto

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