HORAIRE / PROGRAM

XIE SYMPOSIUM INTERNATIONAL
THÉORIE QUANTIQUE ET SYMÉTRIES (QTS)
1 au 5 juillet 2019

XITH INTERNATIONAL SYMPOSIUM
QUANTUM THEORY AND SYMMETRIES (QTS)
July 1– 5, 2019

Conférences plénières : Pavillon Jean-Coutu, salle S1-151
Sessions parallèles : Pavillon Claire-McNicoll. 2e étage
Café du matin : Pavillon Jean-Coutu, Agora
Pauses-café en avant-midi et en après-midi : Pavillon Claire-McNicoll. 2e étage
Réception 1er juillet : Pavillon Jean-Coutu, Agora

Plenary Lectures: Pavillon Jean-Coutu, salle S1-151
Parallel Sessions: Pavillon Claire-McNicoll. 2nd floor
Morning Coffee: Pavillon Jean-Coutu, Agora
AM and PM Coffee Breaks: Pavillon Claire-McNicoll. 2nd floor
Reception July 1st: Pavillon Jean-Coutu, Agora
08:30–09:00 Inscription et café (Agora, Pavillon Jean-Coutu)
Registration and Coffee (Agora, Pavillon Jean-Coutu)

08:50–09:00 Mots de bienvenue / Welcoming addresses (Salle / Room S1-151, Pavillon Jean-Coutu)

Conférences plénières (S1-151, Pavillon Jean-Coutu)
Plenary Lectures (S1-151, Pavillon Jean-Coutu)

09:00–09:45 Joseph D. Lykken (Fermi National Accelerator Laboratory)
“Intersections of quantum information and particle physics”

09:45–10:30 Veronika E. Hubeny (University of California, Davis)
“Holographic Entanglement”

10:30–11:00 Pause-café / Coffee break (Salle / Room Pavillon Claire-McNicoll)

Non-perturbative QFT (Z-200, Pavillon Claire-McNicoll)

11:00–11:30 Nima Lashkari (Institute for Advanced Study)
“Local unitaries in quantum field theory”

11:30–12:00 Tudor Dan Dimofte (UC Davis)
“Higher algebraic structures in SUSY QFT”

12:00–12:30 Aleksey Cherman (University of Minnesota)
“Higgs versus confinement”

Condensed Matter Physics (Z-205, Pavillon Claire-McNicoll)

11:00–11:30 Romain Vasseur (University of Massachusetts Amherst)
“Superdiffusion, diffusion and hydrodynamics in XXZ spin chains”

11:30–12:00 Antti Niemi (Université de Tours)
“Hamiltonian Time Crystals”
12:00–12:30  **Tarun Grover** (University of California San Diego)
“Universal Quantum correlations and Topological Order at Finite Temperatures”

**Cosmology and Gravitation (Z-209, Pavillon Claire-McNicoll)**

11:00–11:30  **Keshav Dasgupta** (McGill University)
“How hard is it to get a de Sitter vacua in string theory?”

11:30–12:00  **Robert Brandenberger** (McGill University)
“Fundamental Physics, the Swampland of Effective Field Theories and Early Universe Cosmology”

12:00–12:30  **Devin G. Walker** (Dartmouth College)
“How hard is it to get a de Sitter vacua in string theory?”

12:00–12:30  **Robert Milson** (Dalhousie University)
“Pseudo-Wronskians of Hermite polynomials”

11:00–11:30  **Ian Marquette** (The University of Queensland)
“Casimir operators and virtual copy method for generalized conformal pseudo-Galilean algebras”

12:00–12:30  **Rosa María Reyes García** (Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional)
“Second-Order Supersymmetric Partners of the Trigonometric Rosen-Morse Potential”

**Special Session in honour of Decio Levi (Z-220, Pavillon Claire-McNicoll)**

11:00–11:30  **Pavel Winternitz** (Université de Montréal)
“Lie Symmetries of Difference, Differential-Difference and Differential Delay Equations”

11:30–12:00  **Jan Cieslinski** (University of Bialystok)
“Darboux-Bäcklund transformations for Spin-valued linear problems”

12:00–12:30  **Giorgio Gubbiotti** (The University of Sydney)
“Five-point differential-difference equations: Their growth properties and stationary reductions”
12:30–14:40  Pause-déjeuner / Lunch break

Conférences plénières (S1-151, Pavillon Jean-Coutu)
Plenary Lectures (S1-151, Pavillon Jean-Coutu)

14:30–15:15 Chihway Chang (University of Chicago)
“Decoding the universe with cosmic surveys”

15:15–16:00 Giulio Chiribella (The University of Hong Kong)
“Quantum strategies for the identification of cause-effect relations”

16:00–16:30 Pause-café / Coffee break (Salle / Room Pavillon Claire-McNicoll)

Non-perturbative QFT (Z-200, Pavillon Claire-McNicoll)

16:30–17:00 Sebastian Fischetti (McGill University)
“Bulk Reconstruction of the Code Subspace”

17:00–17:30 Haresh Raval (Indian Institute of Technology Delhi)
“Deconfinement to Confinement as PT Phase transition”

17:30–18:00 Roberta Iseppi (QGM, Aarhus university)
“A geometric approach to the Batalin-Vilkovisky formalism for matrix models”

Condensed Matter Physics (Z-205, Pavillon Claire-McNicoll)

16:30–17:00 German Sierra (Instituto de Fisica Teorica UAM-CSIC)
“Entanglement as geometry and flow”

17:00–17:30 Tianci Zhou (University of California at Santa Barbara)
“Quantum chaos in long range interaction systems”

17:30–18:00 Rachana Yajur (Indian Institute of Technology Madras)
“Entanglement dynamics in randomly kicked Ising chain”

Cosmology and Gravitation (Z-209, Pavillon Claire-McNicoll)

16:30–17:00 Hamsa Padmanabhan (University of Toronto)
“Intensity mapping: a new window in cosmology”
<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Institution/University</th>
<th>Topic</th>
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<tbody>
<tr>
<td>17:00–17:30</td>
<td>Elisa G. M. Ferreira</td>
<td>Max Planck Institute for Astrophysics</td>
<td>“Unified Superfluid Dark Sector”</td>
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<td>17:30–18:00</td>
<td>Urjit A. Yajnik</td>
<td>Indian Institute of Technology Bombay</td>
<td>“Ferromagnetic instability in PAAI in the sky”</td>
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<td>17:00–17:30</td>
<td>Raphaël Belliard</td>
<td>DESY Hamburg</td>
<td>“Quantum special geometry of Fuchsian systems”</td>
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<td>17:00–17:30</td>
<td>Mark A. Walton</td>
<td>University of Lethbridge</td>
<td>“Demazure formulas for weight polytopes”</td>
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<td>17:30–18:00</td>
<td>Jean-Emile Bourgine</td>
<td>Korea Institute for Advanced Study (KAIS)</td>
<td>“New quantum toroidal algebras from a correspondence with 5D N=1 instantons on deformed ALE spaces”</td>
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<td>16:30–17:00</td>
<td>Maciej Nieszporski</td>
<td>Uniwersytet Warszawski</td>
<td>“Bäcklund transformation as increment of a discrete variable, application to difference equations on edges of graphs”</td>
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<td>17:00–17:30</td>
<td>Zora Thomova</td>
<td>SUNY Polytechnic Institute</td>
<td>“Conditional symmetry preserving discretization of the Boussinesq equation”</td>
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<td>17:30–18:00</td>
<td>Patrick Moylan</td>
<td>Pennsylvania State University</td>
<td>“Tachyons and Representations of the Anti-de Sitter Group”</td>
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<td>18:30–</td>
<td>Réception de bienvenue (Agora, Pavillon Jean-Coutu)</td>
<td>Welcoming Reception (Agora, Pavillon Jean-Coutu)</td>
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Le mardi 2 juillet 2019 / Tuesday, July 2, 2019

08:30–09:00 Inscription et café (Agora, Pavillon Jean-Coutu)
Registration and Coffee (Agora, Pavillon Jean-Coutu)

Conférences plénières (S1-151, Pavillon Jean-Coutu)
Plenary Lectures (S1-151, Pavillon Jean-Coutu)

09:00–09:45 Subir Sachdev (Harvard University)
“Strange metals and black holes”

09:45–10:30 Claude-Michel Viallet (CNRS, Sorbonne Université)
“One the integrability properties of discrete systems”

10:30–11:00 Pause-café / Coffee break (Salle / Room Pavillon Claire-McNicoll)

String theory / AdS-CFT (Z-215, Pavillon Claire-McNicoll)

11:00–11:30 Savdeep Sethi (University of Chicago)
“Hope or No Hope for a String Landscape?”

11:30–12:00 Alexander Maloney (McGill University)
“A Universal Asymptotic Formula for OPE Coefficients”

12:00–12:30 Daniele Dorigoni (Durham University)
“Asymptotic expansions of Poincaré series”

Non-perturbative QFT (Z-200, Pavillon Claire-McNicoll)

11:00–11:30 Max Metlitski (Massachusetts Institute of Technology)

11:30–12:00 Matthew Walters (CERN)
“QFT from CFT”

12:00–12:30 Luca Delacretaz (Stanford University)
“Theory of diffusive fluctuations”
**Cosmology and Gravitation (Z-209, Pavillon Claire-McNicoll)**

11:00–11:30 **Stephon H Alexander** (Brown University)  
"Interacting dark sector and the Hubble Tension"

11:30–12:00 **Rohana Wijewardhana** (University of Cincinnati)  
"Global View of Gravitationally Bound Axion Condensates"

12:00–12:30 **Catarina Cosme** (Carleton University)  
"Scale-invariant scalar field dark matter through the Higgs portal"

**Algebraic Methods (Z-210, Pavillon Claire-McNicoll)**

11:00–11:30 **Hendrik De Bie** (Universiteit Gent)  
"New realizations of Racah algebras"

11:30–12:00 **James Moran** (Université de Montréal)  
"Coherent and squeezed states of the 2D oscillator"

12:00–12:30 **Francesco Toppan** (Centro Brasileiro de Pesquisas Físicas (CBPF))  
"3D Superconformal QM with sl(2/1) dynamical symmetry"

**Special Session in honour of Decio Levi (Z-220, Pavillon Claire-McNicoll)**

11:00–11:30 **Willard Miller, Jr.** (University of Minnesota)  
"3rd-order symmetries for systems on the 2-sphere and the 2 two-sheet 2-hyperboloid: Superintegrability and cubic algebras"

11:30–12:00 **Kurt Bernardo Wolf** (UNAM)  
"Zernike system stems from free motion on the 3-sphere"

12:00–12:30 **Robert Milson** (Dalhousie University)  
"Toward the classification of Exceptional Orthogonal Polynomials"

**Particle Physics (Z-205, Pavillon Claire-McNicoll)**

11:00–11:30 **David McKeen** (TRIUMF)  
"Dark matter and neutrinos"

11:30–12:00 **Jacky Kumar** (Université de Montréal)  
"wcxf/wilson: Python tools for BSM phenomenology using Effective theories"
12:00–12:30 Manuel Toharia (Dawson College)
“th in warped extra dimensions”

12:30–14:30 Pause-déjeuner / Lunch break

Conférences plénières (S1-151, Pavillon Jean-Coutu)
Plenary Lectures (S1-151, Pavillon Jean-Coutu)

14:30–15:15 Alejandra Castro Anich (University of Amsterdam)
“Probes in AdS3 quantum gravity”

15:15–16:00 Glenn Barnich (Université Libre de Bruxelles)
“Gravity as group theory”

16:00–16:30 Pause-café / Coffee break (Salle / Room Pavillon Claire-McNicoll)

String theory / AdS-CFT (Z-215, Pavillon Claire-McNicoll)

16:30–17:00 Sven Krippendorf (LMU Munich)
“Dualities in and from Machine Learning”

17:00–17:30 Prakash Panangaden (McGill University)
“Basic ideas of machine learning”

17:30–18:00 Meng-Chwan Tan (National University of Singapore)
“Unifying lattice models, knot invariants and the geometric Langlands program via branes in string theory”

Condensed Matter Physics (Z-205, Pavillon Claire-McNicoll)

16:30–17:00 Niravkumar Patel (The Ohio State University)
“Magnetic field-induced intermediate quantum spin liquid with a spinon Fermi surface”

17:00–17:30 Zi Yang Meng (Chinese Academy of Sciences)
“Emergent Symmetry at deconfined quantum Criticality”

17:30–18:00 Alfred Shapere (University of Kentucky)
“Simple Realizations of Time Crystals”
**Cosmology and Gravitation (Z-209, Pavillon Claire-McNicoll)**

16:30–17:00 **Mark Bogers** (University of Stavanger)
   “Classifying EFTs, with enhanced soft limits, by symmetry”

17:00–17:30 **Nora Breton** (Centro de Investigacion y de Estudios Avanzados del Instituto Politecnico Nacional)
   “Wormholes in (2+1)-gravity: Quasinormal modes and causality”

17:30–18:00 **Victor Massart** (Université de Montréal)
   “Aberration in electromagnetism and gravito-electromagnetism”

**Algebraic Methods (Z-210, Pavillon Claire-McNicoll)**

16:30–17:00 **Danilo Lewanski** (Max Planck Institute for Mathematics Bonn)
   “Geometric recursion and Masur-Veech volumes”

17:00–17:30 **Elba Garcia-Failde** (Institut de Physique Théorique)
   “Relating ordinary and fully simple maps via monotone Hurwitz numbers”

17:30–18:00 **Naruhiko Aizawa** (Osaka Prefecture University)
   “Color Algebraic Extension of Supersymmetric Quantum Mechanics”

**Special Session in honour of Decio Levi (Z-220, Pavillon Claire-McNicoll)**

16:30–17:00 **Adrian Mauricio Escobar Ruiz** (Université de Montréal)
   “On series of infinite families of superintegrable systems separating in polar coordinates”

17:00–17:30 **Libor Snobl** (Czech Technical University in Prague)
   “Superintegrability in the presence of magnetic fields”

17:30–18:00 **Lisa Ritter** (University of Hawaii at Manoa)
   “Higher Order Symmetries of the Exceptional TTW Potential”

18:00–18:30 **Stéphane Lafortune** (College of Charleston)
   “Stability of Front Solutions in a Model for a Surfactant Driven Flow on an Inclined Plane”
Le mercredi 3 juillet 2019 / Wednesday, July 3, 2019

08:30–09:00  Inscription et café (Agora, Pavillon Jean-Coutu)

   Registration and Coffee (Agora, Pavillon Jean-Coutu)

Conférences plénières (S1-151, Pavillon Jean-Coutu)
Plenary Lectures (S1-151, Pavillon Jean-Coutu)

09:00–09:45  Mark B. Wise (California Institute of Technology)
   “Applications of symmetry to the large scale structure of the universe (scale invariance) and to the hadronic spectrum (heavy diquark-quark flavor symmetry)”

09:45–10:30  Rinat Kedem (University of Illinois at Urbana-Champaign)
   “Deformed Grothendieck rings via quantum cluster algebras: From quantum spin chains to instanton partition functions”

10:30–11:00  Pause-café / Coffee break (Salle / Room Pavillon Claire-McNicoll)

Condensed Matter Physics (Z-205, Pavillon Claire-McNicoll)

11:00–11:30  André-Marie Tremblay (Université de Sherbrooke-Institut quantique)
   “Superconducting Symmetries of Topological-Superconductor Candidate, Strontium Ruthenate”

11:30–12:00  David Sénéchal (Université de Sherbrooke)
   “Symmetry of the order parameter in superconducting strontium ruthenate”

12:00–12:30  Sergueï Tchoumakov (Université de Montréal)
   “Superconductivity from Coulomb repulsion in 3D quadratic band touching Luttinger semimetals”

Particle Physics (Z-200, Pavillon Claire-McNicoll)

11:00–11:30  Joseph Bramante (Queen’s University)
   “Gas Clouds as Dark Matter Detectors”

11:30–12:00  Maíra Dutra (Carleton University)
   “The moduli portal to dark matter particles”
12:00–12:30 Peter Hayman (McMaster University)
“Point-Particle Catalysis”

*Integrability (Z-209, Pavillon Claire-McNicoll)*

11:00–11:30 Frank Göhmann (Bergische Universität Wuppertal)
“On the transverse dynamic correlation functions of the XX chain”

11:30–12:00 Patrick Dorey (University Durham)
“Analytic continuation of TBA equations”

12:00–12:30 Anastasia Doikou (Heriot-Watt University)
“Discrete quantum systems & stochastics”

*Algebraic Methods (Z-210, Pavillon Claire-McNicoll)*

11:00–11:30 Ramadevi Pichai (Indian Institute of Technology)
“Twist Knot Invariants and Volume Conjecture”

11:30–12:00 Vladimir K. Dobrev (Bulgarian Academy of Sciences / Chairman)
“Invariant differential operators over exceptional Lie algebras”

12:00–12:30 Nedialka Stoilova (Institute for Nuclear Research and Nuclear Energy)
“Explicit representations of the Lie superalgebra $B(\infty|\infty)$”

*Special Session in honour of Decio Levi (Z-220, Pavillon Claire-McNicoll)*

11:00–11:30 Sarah Post (University of Hawaii at Manoa)
“Racah and q-Racah Algebras of Superintegrable Systems”

11:30–12:00 Ian Marquette (The University of Queensland)
“Superintegrability, blocks of coordinates and unified derivation of quadratic algebras”

12:00–12:30 Sébastien Tremblay (Université du Québec à Trois-Rivières)
“Generalized power functions in one-dimensional supersymmetric quantum mechanics”

12:30–18:30 Après-midi libre / Free afternoon
18:30– Banquet au Restaurant Maggie Oakes (Vieux Montréal)
*Conference banquet at the Restaurant Maggie Oakes (Old Montreal)*
08:30–09:00 Cafe (Agora, Pavillon Jean-Coutu)
Coffee (Agora, Pavillon Jean-Coutu)

Conférences plénières (S1-151, Pavillon Jean-Coutu)
Plenary Lectures (S1-151, Pavillon Jean-Coutu)

09:00–09:45 Jean-Sébastien Caux (University of Amsterdam)
"Quench, Hydro and Floquet Dynamics in Quantum Integrable Systems"

09:45–10:30 David Poland (Yale University)
"Critical phenomena and the conformal bootstrap"

10:30–11:00 Pause-café / Coffee break (Salle / Room Pavillon Claire-McNicoll)

Quantum Computing and Quantum Information Theory (Z-215, Pavillon Claire-McNicoll)

11:00–11:30 Norbert Lutkenhaus (University of Waterloo)
"Upper and Lower bounds in Quantum Key Distribution"

11:30–12:00 Denis Rosset (Perimeter Institute)
"RepLAB: a computational/numerical approach to representation theory"

12:00–12:30 Nick Hunter-Jones (Perimeter Institute)
"k-designs from statistical mappings in random circuits"

Particle Physics (Z-200, Pavillon Claire-McNicoll)

11:00–11:30 Jean-François Fortin (Université Laval)
"Axion-like Particles, Magnetars and X-ray Astronomy"

11:30–12:00 Heather Logan (Carleton University)
"Custodial symmetry and the Higgs sector"

12:00–12:30 David London (Université de Montréal)
"Anomalies in B decays: A sign of new physics?"
Integrability (Z-209, Pavillon Claire-McNicoll)

11:00–11:30 Rinat Kedem (University of Illinois at Urbana-Champaign)
“The integrable structure of the quantum Q-systems and discrete quantum Toda Hamiltonians”

11:30–12:00 Bernd Schroers (Heriot-Watt University)
“A solvable model for magnetic skyrmions”

12:00–12:30 Jesko Sirker (University of Manitoba)
“The Drude weight of the XXZ spin chain”

Algebraic Methods (Z-210, Pavillon Claire-McNicoll)

11:00–11:30 Luc Vinet (Université de Montréal)
“Algebraic Heun Operators and Entanglement Hamiltonians for Free-Fermion Chains”

11:30–12:00 Julien Gaboriaud (Université de Montréal)
“The dual descriptions of the Askey-Wilson algebra AW(n)”

12:00–12:30 Stephen Low (Hewlett Packard Enterprise)
“Quantum symmetry origin of Heisenberg commutation relations: Projective representations of the inhomogeneous symplectic group”

Special Session in honour of Decio Levi (Z-220, Pavillon Claire-McNicoll)

11:00–11:30 Alfred Michel Grundland (Université du Québec à Trois-Rivières)
“CP^{2S} sigma models described through hypergeometric orthogonal polynomials”

11:30–12:00 Niky Kamran (McGill University)
“Non-uniqueness results for the Calderon problem with data on disjoint sets”

12:00–12:30 Yvan Saint-Aubin (Université de Montréal)
“On the reality of spectra of U_q(sl_2)-invariant XXZ Hamiltonians”

Cosmology and Gravitation (Z-205, Pavillon Claire-McNicoll)

11:00–11:30 Antoine Savard (Université de Montréal)
“Stability of negative mass bubbles in de Sitter space-time”

11:30–12:00 Réjean Plamondon (École Polytechnique de Montréal)
“What does the Central Limit Theorem have to say about General Relativity?”
12:00–12:30  **Gopinath Kamath** (Indian Institute of Technology Tirupati)

“Three partial differential equations in curved space and their respective solutions”

12:30–14:30  Pause-déjeuner / Lunch break

**Conférences plénières (S1-151, Pavillon Jean-Coutu)**

**Plenary Lectures (S1-151, Pavillon Jean-Coutu)**

14:30–15:15  **Fiona Burnell** (University of Minnesota)

“Symmetry protected topological phases: from bosonic topological insulators to fractons”

15:15–16:00  **Miguel A. Rodríguez** (Universidad Complutense de Madrid)

“Integrable spin chains: a survey”

16:00–16:30  Pause-café / Coffee break (Salle / Room Pavillon Claire-McNicoll)

**Condensed Matter Physics (Z-205, Pavillon Claire-McNicoll)**

16:30–17:00  **Erik Díaz-Bautista** (Monterrey Institute of Technology and Higher Education)

“Barut-Girardello coherent states for anisotropic 2D-Dirac materials”

17:00–17:30  **Solomon Owerre** (Perimeter Institute)

“Theoretical and Experimental Observation of Topological Magnon in Honeycomb Ferromagnet CrI3”

17:30–18:00  **Véronique Brousseau-Couture** (Université de Montréal)

“Influence of the electron-phonon interaction on the topological phase transition in BiTeI”

**Particle Physics (Z-200, Pavillon Claire-McNicoll)**

16:30–17:00  **James Cline** (McGill University)

“B decay anomalies and dark matter from new gauge symmetries”

17:00–17:30  **Alberto Tonero** (Carleton University)

“Mirror Dirac leptogenesis”
Integrability (Z-209, Pavillon Claire-McNicoll)

16:30–17:00 Benjamin Doyon (King’s College London)
“Exact results at large space-time scales in integrable systems”

17:00–17:30 Andreas Klümper (Bergische Universität Wuppertal)
“Correlation functions of the integrable SU(n) spin chain”

17:30–18:00 Panagiota Adamopoulou (Heriot-Watt University)
“Drinfel’d-Sokolov construction and exact solutions of the vector modified KdV hierarchy”

18:00–18:30 Andrew Urichuk (University of Manitoba)
“Subleading Temperature Corrections to the XXZ Spin Drude Weight”

Algebraic Methods (Z-210, Pavillon Claire-McNicoll)

16:30–17:00 Juan Domingo Garcia Muñoz (Centro de Investigación y de Estudios Avanzados)
“Electron in bilayer graphene with magnetic fields inducing shape invariance”

17:00–17:30 Daniel Ortiz Campa (CINVESTAV)
“Electron in bilayer graphene with magnetic fields associated to non-shape-invariant potentials”

17:30–18:00 Geoffroy Bergeron (Université de Montréal)
“SUq(3) and bivariate q-Krawtchouk polynomials”

Special Session in honour of Decio Levi (Z-220, Pavillon Claire-McNicoll)

16:30–17:00 Ambra Lattanzi (Institute of Nuclear Physics)
“The spinless Salpeter equation: a nonlocal equation for relativistic quantum mechanics”

17:00–17:30 John Harnad (Concordia University)
“Matrix models for weighted Hurwitz numbers”

17:30–18:00 Véronique Hussin (Université de Montréal)
“Constant curvature holomorphic solutions of the integrable SUSY sigma model G(2,N)”
Quantum Computing and Quantum Information Theory (Z-215, Pavillon Claire-McNicoll)

16:30–17:00 Albert H. Werner (University of Copenhagen)
   “Randomized benchmarking for individual quantum gates”
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<td>08:30–09:00</td>
<td>Café (Agora, Pavillon Jean-Coutu)</td>
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<td><em>Coffee (Agora, Pavillon Jean-Coutu)</em></td>
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<td>09:00–09:45</td>
<td><strong>Conférences plénières (S1-151, Pavillon Jean-Coutu)</strong></td>
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<td><em>Plenary Lectures (S1-151, Pavillon Jean-Coutu)</em></td>
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<td><strong>09:00–09:45 Yi Li</strong> <em>(The Johns Hopkins University)</em></td>
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<td><em>“Monopole Harmonic Ordering”</em></td>
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<td><strong>09:45–10:30 Daniele Valeri</strong> <em>(University of Glasgow)</em></td>
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<td><em>“Algebraic structures arising from physics”</em></td>
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<td>10:30–11:00</td>
<td><strong>Pause-café / Coffee break (Salle / Room Pavillon Claire-McNicoll)</strong></td>
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<td><strong>Quantum Computing and Quantum Information Theory (Z-215, Pavillon Claire-McNicoll)</strong></td>
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<td>11:00–11:30</td>
<td><strong>11:00–11:30 Mio Murao</strong> <em>(University of Tokyo)</em></td>
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<td><em>“Higher order quantum operations of blackbox unitaries”</em></td>
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<td>11:30–12:00</td>
<td><strong>11:30–12:00 Giacomo De Palma</strong> <em>(University of Copenhagen)</em></td>
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<td><em>“New lower bounds to the output entropy of multi-mode quantum Gaussian channels”</em></td>
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<td>12:00–12:30</td>
<td><strong>12:00–12:30 Michal Studzinski</strong> <em>(University of Gdansk)</em></td>
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<td><em>“Symmetries in Port based Teleportation Scheme”</em></td>
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<td><strong>Particle Physics (Z-200, Pavillon Claire-McNicoll)</strong></td>
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<td>11:00–11:30</td>
<td><strong>11:00–11:30 Joshua Berger</strong> <em>(University of Pittsburgh)</em></td>
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<td><em>“A phase of confined electroweak force in the early Universe”</em></td>
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<td>11:30–12:00</td>
<td><strong>11:30–12:00 Takashi Toma</strong> <em>(McGill University)</em></td>
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<td><em>“Pseudo Nambu Goldstone dark matter”</em></td>
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Integrability (Z-209, Pavillon Claire-McNicoll)

11:00–11:30 Jean-Sébastien Caux (University of Amsterdam)
“Floquet resonances and stroboscopic dynamics in driven integrable systems”

11:30–12:00 Bart Vlaar (Heriot-Watt University)
“Baxter’s Q-operator for the open XXZ Heisenberg chain with diagonal boundaries”

Condensed Matter Physics (Z-205, Pavillon Claire-McNicoll)

11:00–11:30 Joseph Maciejko (University of Alberta)
“Disordered and deconfined: exotic quantum criticality with Dirac fermions”

11:30–12:00 Chong Wang (Perimeter Institute for Theoretical Physics)
“QED and quantum magnetism in (2+1)d”

12:00–12:30 Éric Dupuis (Université de Montréal)
“Monopole operators in QED$_3$-Gross-Neveu models and the transition from a Dirac spin liquid to an antiferromagnet”

Special Session in honour of Decio Levi (Z-220, Pavillon Claire-McNicoll)

11:00–11:30 Francis Valiquette (Monmouth University)
“Invariant Discrete Curve Flows”

11:30–12:00 David J. Fernandez (Cinvestav)
“Painlevé IV transcendents generated from the complex oscillator”

12:00–12:30 Orlando Ragnisco (Roma Tre University)
“A confined quasi maximally superintegrable ND system, classical and quantum, in a space with variable curvature”

12:30–14:30 Pause-déjeuner / Lunch break

Conférences plénières (S1-151, Pavillon Jean-Coutu)

Plenary Lectures (S1-151, Pavillon Jean-Coutu)

14:30–15:15 Freddy Cachazo (Perimeter Institute for Theoretical Physics)
“Surprising Varieties in S-Matrices”
Quantum Computing and Quantum Information Theory (Z-215, Pavillon Claire-McNicoll)

15:30–16:00 Dave Touchette (University of Waterloo and Perimeter Institute)
“Erasable Bit Commitment from Temporary Quantum Trust”

16:00–16:30 Benjamin Dive (Institute of Quantum Optics and Quantum Informarion (IQOQI) - Vienna)
“Remote Time Manipulation”

16:30–17:00 Richard MacKenzie (Université de Montréal)
“Qubits as edge state detectors: illustration using the SSH model”

Particle Physics (Z-200, Pavillon Claire-McNicoll)

15:30–16:00 Jack Araz (Concordia University)
“Leptophobic Z’ bosons in supersymmetry and where to find them”

16:00–16:30 Ozer Ozdal (Concordia University)
“Relaxing LHC constraints on the $W_R$ mass”

Integrability (Z-209, Pavillon Claire-McNicoll)

15:30–16:00 Daniele Valeri (University of Glasgow)
“Differential-difference equations and deformations of W-algebras”

16:00–16:30 Jonathan Belletête (CEA Saclay)
“Twisted boundary conditions through fusion functors”

16:30–17:00 Ana Retore (Unesp)
“Symmetries and degeneracies of open quantum spin chains”

Condensed Matter Physics (Z-205, Pavillon Claire-McNicoll)

15:30–16:00 Tami Pereg-Barnea (McGill University)
“Chiral transport and effective non-Hermitian dynamics in a bosonic Kitaev-Majorana chain”

16:00–16:30 Benjamin Doyon (King’s College London)
“The hydrodynamics of integrable systems, and an experimental confirmation”
16:30–17:00 Ranjani Seshadri (McGill University)
“Corner states in higher order topological insulators”

String theory / AdS-CFT (Z-210, Pavillon Claire-McNicoll)

15:30–16:00 Mithat Unsal (North Carolina State University)
“Quantum distillation and resurgent semi-classics in QFT”

16:00–16:30 Anne Taormina (Durham University)
“Quarter BPS states at the Kummer point and Mathieu Moonshine”