

Session Program

18-24 Aug 2024



XVIth Quark Confinement and the Hadron Spectrum

Strongly-Coupled Theories and Dark Matter

Cairns, Queensland, Australia
Cairns Convention Centre

Monday 19 August

14:00

Strongly-Coupled Theories and Dark Matter: G1a (Parallel G)

Session | **Location:** M6 | **Convener:** Domenec Espriu Climent

14:00–14:30

Probe Strongly Coupled Dark Sector via Gravitational Wave

Speaker

ZHIWEI WANG

14:30–15:00

Predictions for neutron star mergers from the gauge/gravity duality

Speaker

Matti Jarvinen

15:00–15:30

Scattering Amplitudes, strong coupling scales and the gauge-gravity double copy in extra dimensions

Speaker

Dipan Sengupta

15:30

Tuesday 20 August

16:00

Strongly-Coupled Theories and Dark Matter: G2b (Parallel G)

Session | **Location:** M4 | **Convener:** Irene Bolognino

16:00–16:20

Anisotropic pressure and novel first-order phase transition in SU(3) Yang-Mills theory on $\mathbb{T}^2 \times \mathbb{R}^2$

Speaker

Daisuke Fujii

16:20–16:40

Accommodating scalar resonances in the HEFT

Speaker

Domenec Espriu Climent

16:40–17:00

Optical calibration of SABRE-South veto photomultiplier tubes

Speaker

Kamiel Janssens

17:00–17:30

Generalized Beth-Uhlenbeck approach to the thermodynamics of quark-hadron matter

Speaker

David Blaschke

17:30

Wednesday 21 August

14:00

Strongly-Coupled Theories and Dark Matter: G3a (Parallel G)

Session | **Location:** M6 | **Convener:** Prof. Anthony Williams

14:00–14:30

Quarks to Cosmos: Particles and Plasma in Cosmological Evolution

Speaker

Johann Rafelski

14:30–15:00

QCD data-driven holographic modeling

Speaker

Koji Hashimoto

15:00–15:30

Instantons processes at colliders

Speaker

VALENTIN,V KHOZE

15:30–16:00

Basis Light-Front Quantization: Advancing a First Principles Approach for Hadrons

Speaker

Chandan Mondal

16:00

Thursday 22 August

11:00

Strongly-Coupled Theories and Dark Matter: G4a (Parallel G)

Session | **Location:** M3 | **Convener:** ZHIWEI WANG

11:00–11:20 **Properties of deuteron on the light front**

Speaker

Satvir Kaur

11:20–11:40

Extending Global Fits of 4D Composite Higgs Models with Partially Composite Leptons

Speaker

Kenn Shern Goh

11:40–12:00

Neutron star structure in QMC with hyperons and high-density repulsion

12:00–12:30

Interacting p-form gauge theories: New developments

Speaker

Sergei Kuzenko

12:30–13:00

Dark photon in parity-violating electron scatterings

Speaker

Xuangong Wang

13:00

14:00

Strongly-Coupled Theories and Dark Matter: G4b (Parallel G)

Session | **Location:** M6 | **Convener:** VALENTIN,V KHOZE

14:00–14:30 **Polyakov loop, random matrix, and color confinement**

Speaker

Masanori Hanada

14:30–15:00

Conformality, confinement and chiral symmetry breaking

Speaker

Jan M. Pawłowski

15:00–15:30

Dark pion DM: WIMP vs. SIMP

Speaker

Prof. Pyungwon Ko

15:30