

Session Program

28 November 2021 to 4 December 2021



Light Cone 2021: Physics of Hadrons on the Light Front

Plenary Session

Jeju Booyoung Hotel, Emerald Hall
222 Jungmungwangwang-ro, Seogwipo-si, Jeju-do 63547, Republic of Korea

Monday 29 November

08:30

Plenary Session: Session 1

Session | **Location:** Jeju Booyoung Hotel, Emerald Hall A&B | **Convener:** Ho-Meoyng Choi

08:30–08:40 **Welcome Address**

Speaker
Yunkyu Bang

08:40–09:10 **From Instant to Light-Front: Opening LC2021**

Speaker
Chueng Ji

09:10–09:40

A New Class of Exclusive Processes to Better Measure the x -Dependence of DAs and GPDs

Speaker
Jianwei Qiu

09:40–10:10

Novel Properties of Hadron Physics Derived from Holographic Light-Front QCD

Speaker
Stanley Brodsky

10:10

10:30

Plenary Session: Session 2

Session | **Location:** Jeju Booyoung Hotel, Emerald Hall A&B | **Convener:** Jianwei Qiu

10:30–11:00 **Light-Front Quantization as an Effective Field Theory**

Speaker
Xiangdong Ji

11:00–11:30 **Basis Light Front Quantization - Progress and Prospects**

Speaker
James Vary

11:30–12:00 **QCD Analysis of Pion Parton Distributions**

Speaker
Wally Melnitchouk

12:00

13:30

Plenary Session: Session 3

Session | **Location:** Jeju Booyoung Hotel, Emerald Hall A&B | **Convener:** Hyun-Chul Kim

13:30–14:00 **Recent Progress of Hypernuclear Physics**

Speaker
Emiko Hiyama

14:00–14:30 **Nucleon Parton Distributions from Lattice QCD**

Speaker

Jiunn-Wei Chen

14:30–15:00

Elementary Example of Exact Effective-Hamiltonian Computation**Speaker**

Stanislaw Glazek

15:00–15:30

Resonance in Coupled Channel Reactions**Speaker**

Toru Sato

15:30

15:50

Plenary Session: Session 4**Session** | **Location:** Jeju Booyoung Hotel, Emerald Hall A&B | **Convener:** Stefan Diehl

15:50–16:20

Frame Dependence of Relativistic Charge Distributions**Speaker**

Cédric Lorcé

16:20–16:50

Compton Scattering on ^4He : Kinematical Features**Speaker**

B. L. G. Bakker

16:50–17:20

FAIR Physics with PANDA**Speaker**

Kai-Thomas Brinkmann

17:20–17:50

Results from the COMPASS Experiment at CERN**Speaker**

Fabienne Kunne

17:50–18:10

A perturbative expansion for bound states**Speaker**

Paul Hoyer

18:10–18:30

Baryonic form factor of the pion**Speaker**

Wojciech Broniowski

18:30

Tuesday 30 November

08:30

Plenary Session: Session 5

Session | **Location:** Jeju Booyoung Hotel, Emerald Hall A&B | **Convener:** Hyon-Suk Jo

08:30–09:00

The SoLID Science Program in Hall A at Jefferson Lab

Speaker

Zein-Eddine Meziani

09:00–09:30

3D Structure of the Nucleon: from JLab12 to JLab24

Speaker

Harut Avakian

09:30–10:00

Nucleon Structure Modification from Tagged DIS Measurements at JLab and the EIC

Speaker

Or Hen

10:00–10:30

Higher-Spin Baryon Photoproduction with Twisted Photons

Speaker

Carl Carlson

10:30

10:50

Plenary Session: Session 6

Session | **Location:** Jeju Booyoung Hotel, Emerald Hall A&B | **Convener:** Wally Melnitchouk

10:50–11:20

Abel Tomography: Charge and Energy-Momentum Tensor Densities of the Nucleon

Speaker

Hyun-Chul Kim

11:20–11:50

Novel Hadron Physics by Structure Functions of Spin-1 Hadrons

Speaker

Shunzo Kumano

11:50–12:20

Positronium Structure from Light-Front QED Hamiltonian

Speaker

Xingbo Zhao

12:20

16:20

Plenary Session: Session 7

Session | **Location:** Jeju Booyoung Hotel, Emerald Hall A&B | **Convener:** Kai-Thomas Brinkmann

16:20–16:50

Current Highlights and Future Prospects from CMS

Speaker

Sezen Sekmen

16:50–17:20

Highlights from ATLAS and Future Plans

Speaker

Massimo Corradi

17:20–17:50

Photon-to-Nucleon Transition Distribution Amplitudes and Backward Time-like Compton Scattering

Speaker

Kirill Semenov-Tian-Shansky

17:50–18:20

Experimental TDA Program at FAIR, JLab and J-PARC

Speaker

Stefan Diehl

18:20

Wednesday 1 December

08:30

Plenary Session: Session 8

Session | Location: Jeju Booyoung Hotel, Emerald Hall A&B | Convener: Harut Avakian

08:30–09:00 Zero Modes and the Vacuum

Speaker
Matthias Burkardt

09:00–09:30 Simple Light Front Quark Models

Speaker
Wayne Polyzou

09:30–10:00 A Nonperturbative Perspective on the Light-Front Vacuum

Speaker
John Hiller

10:00–10:30 Light-Front Quantization from Then Until Now

Speaker
Philip Mannheim

10:30

10:50

Plenary Session: Session 9

Session | Location: Jeju Booyoung Hotel, Emerald Hall A&B | Convener: Su HOUNG Lee

10:50–11:20 Generalized Polarizabilities of the Proton: Overview and New Results

Speaker
Nikos Sparveris

11:20–11:50 Recent Results on Baryon Structures and Dark Sector Searches at Belle and Belle II

Speaker
Youngjoon Kwon

11:50–12:20 Spectroscopic Study of Quark Dynamics in Baryons at J-PARC

Speaker
Hiroyuki Noumi

12:20

16:20

Plenary Session: Session 10

Session | Location: Jeju Booyoung Hotel, Emerald Hall A&B | Convener: Giovanni Salme'

16:20–16:50 Going to the Light Front with Contour Deformations

Speaker
Gernot Eichmann

16:50–17:20 Canonical Approach for Extreme QCD

Speaker
Seung-il Nam

17:20–17:50

Deeply Virtual Compton Scattering on the Neutron with CLAS12 at Jefferson Lab

Speaker

Silvia Niccolai

17:50–18:20

The BGOOD Experiment at ELSA and Multi-Quark Structures in the uds-Sector

Speaker

Hartmut Schmieden

18:20

Friday 3 December

08:30

Plenary Session: Session 11

Session | **Location:** Jeju Booyoung Hotel, Emerald Hall A&B | **Convener:** Kyungseon Joo

08:30–09:00 **Origins of the Proton Mass**

Speaker
Ian Cloet

09:00–09:30 **Confinement in Two-Dimensional QCD and the Infinitely Long Pion**

Speaker
Gerald Miller

09:30–10:00 **Pseudodistributions: PDFs Off the Light Cone**

Speaker
Anatoly Radyushkin

10:00–10:30 **Foundations of the Parton Model Description of TMDs**

Speaker
Fatma Aslan

10:30

10:50

Plenary Session: Session 12

Session | **Location:** Jeju Booyoung Hotel, Emerald Hall A&B | **Convener:** Craig Roberts

10:50–11:20
Advances in Exploration of the Nucleon Resonance Spectrum and Structure

Speaker
Victor Mokeev

11:20–11:50 **Parton Structures in Backward Photo/Electroproduction of Meson**

Speaker
Byung-Geel Yu

11:50–12:20 **Jet Physics Program at RHIC**

Speaker
Nihar Sahoo

12:20

Saturday 4 December

09:00

Plenary Session: Session 13

Session | **Location:** Jeju Booyoung Hotel, Emerald Hall A&B | **Convener:** Zein-Eddine Meziani

09:00–09:30 **Future Opportunities with CEBAF Upgrades**

Speaker
Robert McKeown

09:30–10:00 **Mechanical Properties of the Proton**

Speaker
Volker Burkert

10:00–10:30 **Hadron Physics with AMBER at CERN**

Speaker
Jan Friedrich

10:30

10:50

Plenary Session: Session 14

Session | **Location:** Jeju Booyoung Hotel, Emerald Hall A&B | **Convener:** Tobias Frederico

10:50–11:20 **Status and Prospects of the Electron Ion Collider**

Speaker
Abhay Deshpande

11:20–11:50 **Potential Contribution of Korean Groups for the EIC**

Speaker
Yongsun Kim

11:50–12:20 **Challenges and Opportunities in Hadron Physics**

Speaker
Craig Roberts

12:20