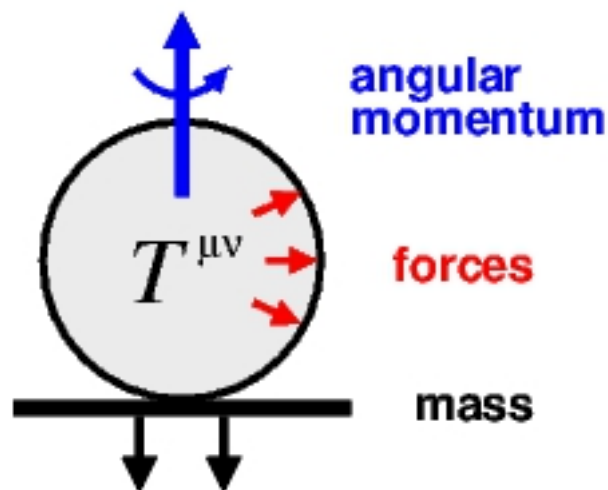


# Mechanical properties of hadrons: Structure, dynamics, visualization



## Report of Contributions

Contribution ID: 1

Type: **not specified**

# Pressure in quantum-mechanical systems

*Wednesday 2 April 2025 14:00 (40 minutes)*

**Presenter:** FREESE, Adam (Thomas Jefferson National Accelerator Facility)

**Session Classification:** Interpretation

Contribution ID: 2

Type: **not specified**

## **Classical model of gravitational form factors**

*Thursday 3 April 2025 09:00 (40 minutes)*

**Presenter:** MEJIA, Andrea

**Session Classification:** Interpretation/Processes

Contribution ID: 3

Type: **not specified**

## **Gravitational form factors and densities in pion**

*Tuesday 1 April 2025 09:00 (40 minutes)*

**Presenter:** RUIZ ARRIOLA, Enrique (Universidad de Granada (Spain))

**Session Classification:** Dynamics I

Contribution ID: 4

Type: **not specified**

# Gravitational form factors theory and phenomenology

*Monday 31 March 2025 10:50 (40 minutes)*

**Presenter:** YUAN, Feng (Lawrence Berkeley National Laboratory)

**Session Classification:** Introduction

Contribution ID: 5

Type: **not specified**

## **1/N\_c expansion for baryon structure**

*Tuesday 1 April 2025 10:50 (40 minutes)*

**Presenter:** GOITY, Jose (Hampton University and Jefferson Lab)

**Session Classification:** Dynamics I

Contribution ID: 6

Type: **not specified**

## **Chiral dynamics and gravitational form factors**

*Tuesday 1 April 2025 15:50 (40 minutes)*

**Presenter:** GEGELIA, Jambul (RUB)

**Session Classification:** Dynamics II

Contribution ID: 7

Type: **not specified**

## **Gravitational form factors from dispersion relations**

*Wednesday 2 April 2025 10:50 (40 minutes)*

**Presenter:** GUO, Feng-Kun (Institute of Theoretical Physics, CAS)

**Session Classification:** Dynamics III



Contribution ID: 8

Type: **not specified**

## **Lattice QCD for mechanical properties**

*Wednesday 2 April 2025 09:00 (40 minutes)*

**Presenter:** CICHY, Krzysztof (Adam Mickiewicz University)

**Session Classification:** Dynamics III

Contribution ID: 9

Type: **not specified**

## **DVCS analysis using machine learning methods**

*Thursday 3 April 2025 09:40 (40 minutes)*

**Presenter:** ČUIĆ, Marija (Department of Physics, Faculty of Science, University of Zagreb)

**Session Classification:** Interpretation/Processes

Contribution ID: **10**

Type: **not specified**

## **Gravitational form factors using novel computational techniques**

*Thursday 3 April 2025 10:50 (40 minutes)*

**Presenter:** HIGUERA ANGULO, Melany (Jefferson Lab)

**Session Classification:** Interpretation/Processes

Contribution ID: 11

Type: **not specified**

## **Probing Orbital Angular Momentum and Spin-Orbit Correlations at the EIC**

*Thursday 3 April 2025 15:50 (40 minutes)*

**Presenter:** BHATTACHARYA, Shohini (University of Connecticut)

**Session Classification:** Processes II

Contribution ID: 12

Type: **not specified**

## **Dispersion relations beyond the lowest order approximation: D-term and hadronic properties**

*Monday 31 March 2025 14:40 (40 minutes)*

**Presenter:** MARTINEZ-FERNANDEZ, Victor (Institute for Research on the Fundamental Laws of the Universe (IRFU/CEA))

**Session Classification:** Processes I

Contribution ID: 13

Type: **not specified**

# Meson exchange dynamics in gravitational form factors

*Tuesday 1 April 2025 09:40 (40 minutes)*

**Presenter:** BRONIEWSKI, Wojciech (Institute of Nuclear Physics)

**Session Classification:** Dynamics I

Contribution ID: 14

Type: **not specified**

## Gravitational form factors from deeply virtual $\pi$ -meson production near threshold

*Monday 31 March 2025 14:00 (40 minutes)*

**Presenter:** HATTA, Yoshitaka (BNL)

**Session Classification:** Processes I

Contribution ID: 15

Type: **not specified**

## **x-dependent GPDs at physical pion mass**

*Wednesday 2 April 2025 09:40 (40 minutes)*

**Presenter:** Prof. LIN, Huey-Wen (Michigan State University)

**Session Classification:** Dynamics III



Contribution ID: 16

Type: **not specified**

## **Energy-momentum tensor and D-term of hydrogen atom**

*Wednesday 2 April 2025 14:40 (40 minutes)*

**Presenter:** CZARNECKI, Andrzej (University of Alberta)

**Session Classification:** Interpretation

Contribution ID: 17

Type: **not specified**

## **Instantons and gravitational form factors**

*Tuesday 1 April 2025 14:00 (40 minutes)*

**Presenter:** ZAHED, Ismail (Stony Brook University, New York/US)

**Session Classification:** Dynamics II

Contribution ID: **18**

Type: **not specified**

## **Transition GPDs and perspectives for mechanical properties of hadrons**

*Thursday 3 April 2025 14:00 (40 minutes)*

**Presenter:** SEMENOV-TYAN-SHANSKIY, Kirill (KNU)

**Session Classification:** Processes II

Contribution ID: 19

Type: **not specified**

## **Interpretation of energy-momentum tensor form factors**

*Wednesday 2 April 2025 15:50 (40 minutes)*

**Presenter:** Ji, Xiangdong (University of Maryland (UMD), College Park/US)

**Session Classification:** Interpretation

Contribution ID: **20**

Type: **not specified**

## **Introduction: Mechanical properties of hadrons**

*Monday 31 March 2025 09:35 (45 minutes)*

**Authors:** PASQUINI, Barbara (University of Pavia and INFN-Pavia (Italy)); WEISS, Christian (Jefferson Lab); LORCÉ, Cédric (Ecole polytechnique); JOO, Kyungseon (University of Connecticut (UConn), Storrs/US); SCHWEITZER, Peter; DIEHL, Stefan (Justus Liebig University Giessen and University of Connecticut)

**Presenter:** WEISS, Christian (Jefferson Lab)

**Session Classification:** Introduction

Contribution ID: 21

Type: **not specified**

## **Exclusive processes: From JLab to the EIC**

*Monday 31 March 2025 15:50 (40 minutes)*

**Presenter:** DIEHL, Stefan (Justus Liebig University Giessen and University of Connecticut)

**Session Classification:** Processes I

Contribution ID: 22

Type: **not specified**

## **Welcome by the ECT\* director**

*Monday 31 March 2025 09:15 (20 minutes)*

**Presenter:** VAN KOLCK, Ubirajara (IJCLab Orsay & University of Arizona)

**Session Classification:** Introduction

Contribution ID: 23

Type: **not specified**

## **JLab 12 GeV exclusive processes**

*Thursday 3 April 2025 14:40 (40 minutes)*

**Presenter:** JOO, Kyungseon (University of Connecticut (UConn), Storrs/US)

**Session Classification:** Processes II



Contribution ID: 24

Type: **not specified**

## Discussion

**Session Classification:** Dynamics I

Contribution ID: 25

Type: **not specified**

# Holographic QCD and gravitational form factors

*Tuesday 1 April 2025 14:40 (40 minutes)*

**Presenter:** MAMO, Kiminad Abebe (College of William & Mary, USA)

**Session Classification:** Dynamics II

Contribution ID: 26

Type: **not specified**

## Round table discussion

*Friday 4 April 2025 09:00 (1h 20m)*

**Presenters:** PASQUINI, Barbara (University of Pavia and INFN-Pavia (Italy)); WEISS, Christian (Jefferson Lab); LORCÉ, Cédric (Ecole polytechnique); JOO, Kyungseon (University of Connecticut (UConn), Storrs/US); SCHWEITZER, Peter; DIEHL, Stefan (Justus Liebig University Giessen and University of Connecticut)

**Session Classification:** Round table: Future plans

Contribution ID: 27

Type: **not specified**

## Workshop Summary

*Friday 4 April 2025 11:30 (30 minutes)*

**Presenters:** PASQUINI, Barbara (University of Pavia and INFN-Pavia (Italy)); WEISS, Christian (Jefferson Lab); LORCÉ, Cédric (Ecole polytechnique); JOO, Kyungseon (University of Connecticut (UConn), Storrs/US); SCHWEITZER, Peter; DIEHL, Stefan (Justus Liebig University Giessen and University of Connecticut)

**Session Classification:** Summary and wrap up