

# Fifth workshop on "Perceiving the Emergence of Hadron Mass through AMBER@CERN" (EHM2021/9)

Perceiving the Emergence  
of Hadron Mass through  
**AMBER@CERN**

27 April to 30 April 2021  
CERN, Geneva - Switzerland



## Report of Contributions

Contribution ID: 7

Type: **not specified**

## Introductory talk

*Wednesday, 21 April 2021 14:00 (5 minutes)*

**Presenter:** DENISOV, Oleg (INFN, sezione di Torino)

**Session Classification:** Day I - Introduction

Contribution ID: 8

Type: **not specified**

## Probing EHM with AMBER

*Wednesday, 21 April 2021 14:05 (35 minutes)*

**Presenter:** ROBERTS, Craig (Nanjing University)

**Session Classification:** Day I - Introduction

Contribution ID: 9

Type: **not specified**

## Charged proton-radius measurement

*Wednesday, 21 April 2021 14:40 (25 minutes)*

**Presenter:** DZIUBA, Aleksei (NRC Kurchatov Institute PNPI (RU))

**Session Classification:** Approved measurements

Contribution ID: **10**

Type: **not specified**

## **Antiproton cross-section measurements for Dark Matter search**

*Wednesday, 21 April 2021 15:05 (20 minutes)*

**Presenter:** ZUCCON, Paolo (Universita degli Studi di Trento and INFN (IT))

**Session Classification:** Approved measurements

Contribution ID: 11

Type: **not specified**

## **Probing the pion's parton structure at AMBER**

*Wednesday, 21 April 2021 15:25 (25 minutes)*

**Presenter:** PLATCHKOV, Stephane (Université Paris-Saclay (FR))

**Session Classification:** Approved measurements

Contribution ID: 12

Type: **not specified**

## Probing the kaon's parton structure at AMBER Phase-2

*Wednesday, 21 April 2021 16:00 (30 minutes)*

**Presenter:** ANDRIEUX, Vincent (Univ. Illinois at Urbana Champaign (US))

**Session Classification:** Envisaged measurements

Contribution ID: 13

Type: **not specified**

## Measuring excitation spectra in K $\pi$ $\pi$ final states with AMBER Phase-2

*Wednesday, 21 April 2021 16:30 (25 minutes)*

**Presenter:** GRUBE, Boris (Technische Universitaet Muenchen (DE))

**Session Classification:** Envisaged measurements



Contribution ID: 14

Type: **not specified**

## Measuring the Primakoff reaction and $F_{\{K2\pi\}}$ with AMBER phase-II

*Wednesday, 21 April 2021 16:55 (20 minutes)*

**Presenter:** MALTSEV, Andrii (Joint Institute for Nuclear Research (RU))

**Session Classification:** Envisaged measurements

Contribution ID: 15

Type: **not specified**

## **Can AMBER Phase-2 access the charge radius of pion or/and kaon?**

*Wednesday, 21 April 2021 17:15 (15 minutes)*

**Presenter:** FRIEDRICH, Jan (Technische Universitaet Muenchen (DE))

**Session Classification:** Day I -

Contribution ID: 16

Type: **not specified**

## **Can AMBER Phase-2 access Moments of pion/kaon Distribution Amplitudes in Diffractive Scattering?**

*Wednesday, 21 April 2021 17:30 (15 minutes)*

**Presenter:** DENISOV, Oleg (INFN, sezione di Torino)

**Session Classification:** Day I -

Contribution ID: 17

Type: **not specified**

## **Lattice QCD for AMBER**

*Thursday, 22 April 2021 14:00 (35 minutes)*

**Presenter:** RICHARDS, David (Jefferson Lab)

**Session Classification:** Day II

Contribution ID: **18**

Type: **not specified**

## Meson DFs from Lattice QCD

*Thursday, 22 April 2021 14:35 (25 minutes)*

**Presenter:** KARTHIK, Nikhil (Brookhaven National Laboratory)

**Session Classification:** Day II

Contribution ID: 19

Type: **not specified**

## **Pion DAs in AMBER**

*Friday, 23 April 2021 16:25 (25 minutes)*

**Presenter:** STEFANIS, Nikolaos (Ruhr University Bochum, Germany)

**Session Classification:** Day III

Contribution ID: **20**

Type: **not specified**

## **EHM via Meson GPDs**

*Thursday, 22 April 2021 15:25 (25 minutes)*

**Presenter:** MORGADO CHÁVEZ, Jose Manuel (Universidad de Huelva)

**Session Classification:** Day II

Contribution ID: 21

Type: **not specified**

## Basic EHM from Lattice QCD

*Thursday, 22 April 2021 16:00 (25 minutes)*

**Presenter:** SKULLERUD, Jon-Ivar (National University of Ireland Maynooth)

**Session Classification:** Day II -



Contribution ID: 22

Type: **not specified**

## **Pion structure as a problem in Minkowski space**

*Thursday, 22 April 2021 16:25 (25 minutes)*

**Presenter:** YDREFORS, Emanuel (Instituto Tecnológico de Aeronautica)

**Session Classification:** Day II -

Contribution ID: 23

Type: **not specified**

## **Basis light-front quantisation**

*Thursday, 22 April 2021 16:50 (25 minutes)*

**Presenter:** ZHAO, Xingbo (Institute of Modern Physics, Chinese Academy of Sciences)

**Session Classification:** Day II -

Contribution ID: 24

Type: **not specified**

## Discussion

*Thursday, 22 April 2021 17:15 (30 minutes)*

**Session Classification:** Day II -

Contribution ID: 25

Type: **not specified**

## **NNPDFs for meson structure**

*Friday, 23 April 2021 14:00 (35 minutes)*

**Presenter:** Dr ROJO, Juan (VU Amsterdam and Nikhef)

**Session Classification:** Day III

Contribution ID: 27

Type: **not specified**

## **Accessing pion's large-x gluon by fixed-target charmonium production**

*Friday, 23 April 2021 14:35 (25 minutes)*

**Presenter:** CHANG, Wen-Chen (Academia Sinica (TW))

**Session Classification:** Day III

Contribution ID: 28

Type: **not specified**

## **EHM via meson light-front wave functions - Part 1**

*Friday, 23 April 2021 15:00 (25 minutes)*

**Presenter:** RAYA MONTAÑO, Khépani

**Session Classification:** Day III

Contribution ID: 29

Type: **not specified**

## **EHM via meson light-front wave functions - Part 2**

*Friday, 23 April 2021 15:25 (25 minutes)*

**Presenter:** RODRIGUEZ QUINTERO, José (University of Huelva)

**Session Classification:** Day III

Contribution ID: **30**

Type: **not specified**

## **High-energy factorization for DY with new TMD (unintegrated) PDFs**

*Thursday, 22 April 2021 15:00 (25 minutes)*

**Presenter:** Dr NEFEDOV, Maxim (Samara State University)

**Session Classification:** Day II



Contribution ID: **31**

Type: **not specified**

## **Discussion**

*Friday, 23 April 2021 16:50 (30 minutes)*

**Session Classification:** Day III

Contribution ID: 32

Type: **not specified**

## **EHM and the spectrum of light mesons**

**Presenter:** CHANG, Lei (Nankai University)

**Session Classification:** Day IV

Contribution ID: 33

Type: **not specified**

## **EHM as revealed by the spectra of baryons with heavy quarks**

**Presenter:** SEGOVIA, Jorge (Pablo de Olavide U., Seville)

**Session Classification:** Day IV

Contribution ID: 34

Type: **not specified**

## **Synergies with EHM at Jlab**

**Presenter:** MOKEEV, Victor (Thomas Jefferson National Accelerator Facility)

**Session Classification:** Day IV

Contribution ID: 35

Type: **not specified**

## **Model independent extraction of hadron radii**

*Friday, 23 April 2021 16:00 (25 minutes)*

**Presenter:** BINOSI, Daniele (ECT\* Fondazione Bruno Kessler)

**Session Classification:** Day III

Contribution ID: **36**

Type: **not specified**

## Round-table discussion

Wolf-Dieter Nowak / Craig Roberts

Stephane Platchkov

Vincent Andrieux

Andrii Maltsev

Boris Grube

Jan Friedrich

Oleg Denisov

...

and all other participants

**Session Classification:** Day IV - Round table