

# **Radiative Corrections from medium to high energy experiments**

## **Report of Contributions**

Contribution ID: 6

Type: **not specified**

## Welcome and Registration

*Monday, 18 July 2022 09:00 (45 minutes)*

**Primary author:** CLINE, Ethan (Stony Brook University, Stony Brook/US)

**Presenter:** CLINE, Ethan (Stony Brook University, Stony Brook/US)

**Session Classification:** Morning Session 1

Contribution ID: 7

Type: **not specified**

## Why we are here and things that bother me

*Monday, 18 July 2022 09:45 (30 minutes)*

**Primary author:** BERNAUER, Jan (Stony Brook University, Stony Brook/US)

**Presenter:** BERNAUER, Jan (Stony Brook University, Stony Brook/US)

**Session Classification:** Morning Session 1

Contribution ID: 8

Type: **not specified**

## **Current status of the ULQ2 experiment and required corrections**

*Monday, 18 July 2022 10:15 (45 minutes)*

**Primary author:** LEGRIS, Clement (ELPH, Tohoku University (Japan))

**Presenter:** LEGRIS, Clement (ELPH, Tohoku University (Japan))

**Session Classification:** Morning Session 1

Contribution ID: 9

Type: **not specified**

# Proton Charge Radius from PRad Experiment at Jefferson Lab

*Monday, 18 July 2022 11:00 (45 minutes)*

**Primary author:** GASPARIAN, Ashot (NC A and T State University, NC, USA)

**Presenter:** GASPARIAN, Ashot (NC A and T State University, NC, USA)

**Session Classification:** Morning Session 1

Contribution ID: **10**

Type: **not specified**

## High-precision QED initial state corrections for $e^+e^- \rightarrow \gamma^*/Z^*$ annihilation

*Monday, 18 July 2022 13:30 (45 minutes)*

**Primary author:** BLUEMLEIN, Johannes (DESY)

**Presenter:** BLUEMLEIN, Johannes (DESY)

**Session Classification:** Afternoon Session 1

Contribution ID: **11**

Type: **not specified**

## **corrections for the chiral anomaly reaction $\pi$ $\gamma \rightarrow \pi \pi^0$**

*Tuesday, 19 July 2022 09:00 (45 minutes)*

**Primary author:** FRIEDRICH, Jan (TU Munich)

**Presenter:** FRIEDRICH, Jan (TU Munich)

**Session Classification:** Morning Session 2

Contribution ID: 12

Type: **not specified**

## **Spin effects and two-photon exchange in electron scattering below the second resonance region: an effective theory approach**

*Monday, 18 July 2022 15:30 (45 minutes)*

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

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

**Session Classification:** Afternoon Session 1



Contribution ID: **13**

Type: **not specified**

## Discussion

*Monday, 18 July 2022 16:15 (45 minutes)*

**Primary author:** CLINE, Ethan (Stony Brook University, Stony Brook/US)

**Presenter:** CLINE, Ethan (Stony Brook University, Stony Brook/US)

**Session Classification:** Afternoon Session 1

Contribution ID: 14

Type: **not specified**

## **Two-photon exchange, single spin asymmetries, and proton form factors**

*Thursday, 21 July 2022 11:00 (45 minutes)*

**Primary author:** BLUNDEN, Peter (University of Manitoba)

**Presenter:** BLUNDEN, Peter (University of Manitoba)

**Session Classification:** Morning Session 4

Contribution ID: 15

Type: **not specified**

# Electroweak box corrections for precision tests of the Standard Model

*Tuesday, 19 July 2022 09:45 (45 minutes)*

**Primary author:** GORSHTEYN, Mikhail (JGU Mainz)

**Presenter:** GORSHTEYN, Mikhail (JGU Mainz)

**Session Classification:** Morning Session 2

Contribution ID: 16

Type: **not specified**

## **Radiative corrections in Dalitz decays of $\pi^0$ , $\eta^{(\prime)}$ , $K^+$ , and $\Sigma^0$**

*Tuesday, 19 July 2022 14:00 (45 minutes)*

**Primary author:** HUSEK, Tomas (Lund University)

**Presenter:** HUSEK, Tomas (Lund University)

**Session Classification:** Afternoon Session 2

Contribution ID: 17

Type: **not specified**

## **radiative corrections to elastic muon proton scattering at low momentum transfers**

*Tuesday, 19 July 2022 13:30 (30 minutes)*

**Primary author:** KAISER, Norbert (Technische Universitaet Muenchen)

**Presenter:** KAISER, Norbert (Technische Universitaet Muenchen)

**Session Classification:** Afternoon Session 2

Contribution ID: **18**

Type: **not specified**

## **Radiative Corrections in Super-Rosenbluth Experiments**

*Tuesday, 19 July 2022 11:00 (45 minutes)*

**Primary author:** SCHMIDT, Axel (George Washington University)

**Presenter:** SCHMIDT, Axel (George Washington University)

**Session Classification:** Morning Session 2

Contribution ID: 19

Type: **not specified**

## **Elements of QED-NRQED Effective Field Theory: II. Matching of Contact Interactions**

*Tuesday, 19 July 2022 15:30 (45 minutes)*

**Primary author:** PAZ, Gil

**Presenter:** PAZ, Gil

**Session Classification:** Afternoon Session 2

Contribution ID: **20**

Type: **not specified**

## Discussion

*Tuesday, 19 July 2022 16:15 (45 minutes)*

**Primary author:** GILMAN, Ronald (Rutgers University)

**Presenter:** GILMAN, Ronald (Rutgers University)

**Session Classification:** Afternoon Session 2



Contribution ID: **21**

Type: **not specified**

## **Radiative corrections for the MUSE experiment**

*Wednesday, 20 July 2022 09:00 (45 minutes)*

**Primary author:** STRAUCH, Steffen (University of South Carolina)

**Presenter:** STRAUCH, Steffen (University of South Carolina)

**Session Classification:** Morning Session 3

Contribution ID: **22**

Type: **not specified**

## Two Photon Exchange at MUSE

*Wednesday, 20 July 2022 09:45 (45 minutes)*

**Primary author:** GILMAN, Ronald (Rutgers University)

**Presenter:** GILMAN, Ronald (Rutgers University)

**Session Classification:** Morning Session 3

Contribution ID: 23

Type: **not specified**

## Two-photon exchange in Chiral perturbation Theory

*Wednesday, 20 July 2022 11:00 (45 minutes)*

**Primary author:** MYHRER, Fred (University of South Carolina)

**Presenter:** MYHRER, Fred (University of South Carolina)

**Session Classification:** Morning Session 3

Contribution ID: 24

Type: **not specified**

## **Radiative corrections in interactions involving electrons and protons**

*Wednesday, 20 July 2022 13:30 (45 minutes)*

**Primary author:** TOMASI-GUSTAFSSON, Egle (CEA Saclay)

**Presenter:** TOMASI-GUSTAFSSON, Egle (CEA Saclay)

**Session Classification:** Afternoon Session 3

Contribution ID: 25

Type: **not specified**

## **Study of radiative corrections for electron-proton scattering at A1 Collaboration**

*Wednesday, 20 July 2022 14:15 (45 minutes)*

**Primary author:** MIHOVILOVIC, Miha (Jozef Stefan Institute, Faculty of Mathematics and Physics University of Ljubljana)

**Presenter:** MIHOVILOVIC, Miha (Jozef Stefan Institute, Faculty of Mathematics and Physics University of Ljubljana)

**Session Classification:** Afternoon Session 3

Contribution ID: 26

Type: **not specified**

## Radiative Corrections in SIDIS

*Wednesday, 20 July 2022 15:30 (45 minutes)*

**Primary author:** AKUSHEVICH, Igor (Duke University)

**Presenter:** AKUSHEVICH, Igor (Duke University)

**Session Classification:** Afternoon Session 3

Contribution ID: 27

Type: **not specified**

## Discussion

*Wednesday, 20 July 2022 16:15 (45 minutes)*

**Primary author:** BERNAUER, Jan (Stony Brook University, Stony Brook/US)

**Presenter:** BERNAUER, Jan (Stony Brook University, Stony Brook/US)

**Session Classification:** Afternoon Session 3

Contribution ID: **28**

Type: **not specified**

# The McMule framework for NNLO QED calculations

*Thursday, 21 July 2022 09:00 (45 minutes)*

**Primary author:** SIGNER, Adrian (PSI / UZH)

**Presenter:** SIGNER, Adrian (PSI / UZH)

**Session Classification:** Morning Session 4



Contribution ID: 29

Type: **not specified**

## NNLO results with McMule

*Thursday, 21 July 2022 09:45 (45 minutes)*

**Primary author:** ULRICH, Yannick (University of Durham)

**Presenter:** ULRICH, Yannick (University of Durham)

**Session Classification:** Morning Session 4

Contribution ID: **30**

Type: **not specified**

**TBD**

**Session Classification:** Morning Session 4

Contribution ID: 31

Type: **not specified**

## **Radiative corrections to charged-current neutrino scattering at GeV energies**

*Thursday, 21 July 2022 13:30 (45 minutes)*

**Primary author:** TOMALAK, Oleksandr (Los Alamos National Laboratory)

**Presenter:** TOMALAK, Oleksandr (Los Alamos National Laboratory)

**Session Classification:** Afternoon Session 4

Contribution ID: 32

Type: **not specified**

## **Dispersion corrections to elastic electron-nucleus scattering cross sections**

*Thursday, 21 July 2022 14:15 (45 minutes)*

**Primary author:** JAKUBASSA-AMUNDSEN, Doris (LMU Munich)

**Presenter:** JAKUBASSA-AMUNDSEN, Doris (LMU Munich)

**Session Classification:** Afternoon Session 4

Contribution ID: 33

Type: **not specified**

## **Radiative corrections for PVDIS, from 6 to 12 GeV (An experimentalist's view)**

*Thursday, 21 July 2022 15:30 (45 minutes)*

**Primary author:** ZHENG, Xiaochao (University of Virginia (UVa), Charlottesville/US)

**Presenter:** ZHENG, Xiaochao (University of Virginia (UVa), Charlottesville/US)

**Session Classification:** Afternoon Session 4

Contribution ID: **34**

Type: **not specified**

## Discussion

*Thursday, 21 July 2022 16:15 (45 minutes)*

**Primary author:** AFANASEV, Andrei (George Washington University, Washington/US)

**Presenter:** AFANASEV, Andrei (George Washington University, Washington/US)

**Session Classification:** Afternoon Session 4

Contribution ID: 35

Type: **not specified**

## Radiative effects in GENIE

*Friday, 22 July 2022 09:45 (45 minutes)*

**Primary author:** ASHKENAZI, adi (MIT)

**Presenter:** ASHKENAZI, adi (MIT)

**Session Classification:** Morning Session 5

Contribution ID: 36

Type: **not specified**

## **Measurement of structure dependent radiative $K^+ \rightarrow e+\nu\gamma$ decays using stopped positive kaons**

*Friday, 22 July 2022 09:00 (45 minutes)*

**Primary author:** KOHL, Michael (Hampton University)

**Presenter:** KOHL, Michael (Hampton University)

**Session Classification:** Morning Session 5



Contribution ID: 37

Type: **not specified**

## Close-Out

*Friday, 22 July 2022 11:00 (45 minutes)*

**Primary author:** CLINE, Ethan (Stony Brook University, Stony Brook/US)

**Presenter:** CLINE, Ethan (Stony Brook University, Stony Brook/US)

**Session Classification:** Morning Session 5

Contribution ID: 39

Type: **not specified**

# The Two Photon Exchange Experiment

*Monday, 18 July 2022 14:15 (45 minutes)*

**Primary author:** CLINE, Ethan (Stony Brook University, Stony Brook/US)

**Presenter:** CLINE, Ethan (Stony Brook University, Stony Brook/US)

**Session Classification:** Afternoon Session 1