

# NA61/SHINE Beyond 2020 Workshop

The poster features a dark, industrial-looking background with several bright green curved lines. The main title 'NA61 BEYOND 2020' is in large red letters. Below it, the subtitle 'Future Physics Opportunities with the NA61/SHINE Spectrometer' is in smaller red text. The dates 'July 26-28, 2017' are also in red. On the left is the University of Geneva logo and text. On the right is the SHINE NA61 logo. At the bottom right is a URL.

**NA61 BEYOND 2020**  
Future Physics Opportunities with the NA61/SHINE  
Spectrometer  
July 26-28, 2017

 UNIVERSITÉ  
DE GENÈVE  
FACULTÉ DES SCIENCES  
Section de physique

 SHINE  
NA61

<https://indico.cern.ch/event/629968/>

## Report of Contributions

Contribution ID: 1

Type: **not specified**

## **Transportation to CERN Prévessin site**

*Wednesday, 26 July 2017 14:30 (30 minutes)*

**Session Classification:** Tour of NA61 (CERN Prévessin)

Contribution ID: 2

Type: **not specified**

## **NA61/SHINE facility: beams and detector systems**

*Wednesday, 26 July 2017 15:00 (1 hour)*

**Presenters:** KAPTUR, Emil Aleksander (University of Silesia (PL)); ZIMMERMAN, Eric Daniel (University of Colorado Boulder (US))

**Session Classification:** Tour of NA61 (CERN Prévessin)

Contribution ID: 3

Type: **not specified**

## **Tour of NA61/SHINE detector**

*Wednesday, 26 July 2017 16:00 (1h 30m)*

**Session Classification:** Tour of NA61 (CERN Prévessin)

Contribution ID: 4

Type: **not specified**

## Transportation from CERN Prévessin site

*Wednesday, 26 July 2017 17:30 (30 minutes)*

**Session Classification:** Tour of NA61 (CERN Prévessin)

Contribution ID: 5

Type: **not specified**

## **Strong interaction programme of NA61/SHINE**

*Thursday, 27 July 2017 09:00 (30 minutes)*

**Presenter:** GAZDZICKI, Marek (Johann-Wolfgang-Goethe Univ. (DE))

**Session Classification:** Session 1

Contribution ID: 6

Type: **not specified**

## **Hadron production measurements for neutrino experiments**

*Thursday, 27 July 2017 09:30 (30 minutes)*

**Presenter:** MARINO, Alysia Diane (University of Colorado Boulder (US))

**Session Classification:** Session 1

Contribution ID: 7

Type: **not specified**

## **Need for nuclei production cross sections for interpretation of cosmic-ray data**

*Thursday, 27 July 2017 10:00 (30 minutes)*

**Presenters:** MAURIN, David Alain (Centre National de la Recherche Scientifique (FR)); MAURIN, David

**Session Classification:** Session 1



Contribution ID: 8

Type: **not specified**

## Open and hidden charm in heavy ion collisions

*Thursday, 27 July 2017 11:00 (30 minutes)*

**Presenter:** SATZ, Helmut (Univ. Bielefeld)

**Session Classification:** Session 1

Contribution ID: 9

Type: **not specified**

## NUMI/NOvA flux

*Thursday, 27 July 2017 11:30 (20 minutes)*

**Presenter:** ALIAGA, Leo

**Session Classification:** Session 1

Contribution ID: **10**

Type: **not specified**

## **Flux needs for MINERvA**

*Thursday, 27 July 2017 11:50 (20 minutes)*

**Presenters:** ALIAGA, Leo; Dr ALIAGA SOPLIN, Leonidas (Fermilab); ALIAGA SOPLIN, Leonidas (College of William and Mary (US))

**Session Classification:** Session 1

Contribution ID: 11

Type: **not specified**

## **Statistical models of open and hidden charm production**

*Thursday, 27 July 2017 14:00 (30 minutes)*

**Presenter:** GORENSTEIN, Mark (Bogolyubov Institute for Theoretical Physics)

**Session Classification:** Session 2

Contribution ID: 12

Type: **not specified**

## **Need for antiparticle production cross sections for interpretation of cosmic-ray data**

*Thursday, 27 July 2017 14:30 (30 minutes)*

**Presenters:** DONATO, Fiorenza (INFN - National Institute for Nuclear Physics); DONATO, Fiorenza

**Session Classification:** Session 2

Contribution ID: 13

Type: **not specified**

## **Production of light nuclei via coalescence for CR**

*Thursday, 27 July 2017 15:00 (30 minutes)*

**Presenter:** TOMASSETTI, Nicola (Perugia University & INFN- Perugia)

**Session Classification:** Session 2

Contribution ID: 14

Type: **not specified**

## Open and hidden charm in string models

*Thursday, 27 July 2017 16:20 (25 minutes)*

**Presenter:** CASSING, Wolfgang (University of Giessen)

**Session Classification:** Session 2

Contribution ID: 15

Type: **not specified**

## **Status of the NICA project and prospects for study of multistrangeness and charm in p+p and Au+Au collisions**

*Thursday, 27 July 2017 16:45 (25 minutes)*

**Presenters:** KOLESNIKOV, Vadim (Joint Institute for Nuclear Research (RU)); KOLESNIKOV, Vadim (JINR)

**Session Classification:** Session 2



Contribution ID: 16

Type: **not specified**

## **Feasibility of open and hidden charm measurements at FAIR**

*Thursday, 27 July 2017 17:10 (25 minutes)*

**Presenters:** FRIESE, Volker (GSI - Helmholtzzentrum für Schwerionenforschung GmbH (DE)); FRIESE, Volker (GSI Darmstadt)

**Session Classification:** Session 2

Contribution ID: 17

Type: **not specified**

## **Feasibility of open and hidden charm measurements at HI-J-PARC**

*Thursday, 27 July 2017 17:35 (25 minutes)*

**Presenter:** HAMAGAKI, Hideki (Nagasaki Inst. of Applied Science (JP))

**Session Classification:** Session 2

Contribution ID: **18**

Type: **not specified**

## Nu\_tau production

**Presenter:** ARIGA, Akitaka (Universitaet Bern (CH))

**Session Classification:** Session 3

Contribution ID: 19

Type: **not specified**

## **Status of the MFT project of the ALICE upgrade program for Run 3 and Run 4 at the LHC**

*Friday, 28 July 2017 10:00 (20 minutes)*

**Presenter:** TIEULENT, Raphael (IPN-Lyon, CNRS/IN2P3, Université de Lyon)

**Session Classification:** Session 3

Contribution ID: 20

Type: **not specified**

## **Ideas on new NA61/SHINE Vertex Detector design**

*Friday, 28 July 2017 09:40 (20 minutes)*

**Presenter:** FEOFILOV, Grigori (St Petersburg State University (RU))

**Session Classification:** Session 3

Contribution ID: 21

Type: **not specified**

## **Feasibility of open charm measurements in NA61/SHINE**

*Friday, 28 July 2017 11:10 (20 minutes)*

**Presenter:** PULAWSKI, Szymon Mateusz (University of Silesia (PL))

**Session Classification:** Session 3

Contribution ID: 22

Type: **not specified**

## Hadron production for atmospheric neutrinos

*Friday, 28 July 2017 09:00 (20 minutes)*

**Presenters:** BARR, Giles (Oxford University); BARR, Giles (University of Oxford (GB))

**Session Classification:** Session 3

Contribution ID: 23

Type: **not specified**

## Overview and hadron production for LBNF/DUNE

*Friday, 28 July 2017 11:30 (50 minutes)*

**Presenter:** FIELDS, Laura (Fermi National Accelerator Laboratory)

**Session Classification:** Session 3



Contribution ID: 24

Type: **not specified**

## **Proposal to Study of Critical Fluctuations and Electromagnetic Effects**

*Friday, 28 July 2017 10:50 (20 minutes)*

**Presenter:** DAVIS, Nikolaos (Polish Academy of Sciences (PL))

**Session Classification:** Session 3

Contribution ID: 25

Type: **not specified**

## HyperK overview

*Friday, 28 July 2017 13:50 (20 minutes)*

**Presenters:** DI LODOVICO, Francesca (University of London (GB)); DI LODOVICO, Francesca (QMUL)

**Session Classification:** Session 4

Contribution ID: 26

Type: **not specified**

## **Hadron production requirements for E61**

*Friday, 28 July 2017 14:10 (20 minutes)*

**Presenters:** HARTZ, Mark (Kavli IPMU (WPI), University of Tokyo); HARTZ, Mark; HARTZ, Mark (University of Pittsburgh); HARTZ, Mark

**Session Classification:** Session 4

Contribution ID: 27

Type: **not specified**

## **T2K overview**

*Friday, 28 July 2017 14:30 (20 minutes)*

**Presenter:** WASCKO, Morgan (Imperial College London)

**Session Classification:** Session 4

Contribution ID: 28

Type: **not specified**

## **T2K flux prediction with NA61**

*Friday, 28 July 2017 14:50 (20 minutes)*

**Presenter:** SAKASHITA, Ken (High Energy Accelerator Research Organization (JP))

**Session Classification:** Session 4

Contribution ID: 29

Type: **not specified**

## **T2K-II flux improvement**

*Friday, 28 July 2017 15:10 (20 minutes)*

**Presenter:** FRIEND, Megan

**Session Classification:** Session 4

Contribution ID: **30**

Type: **not specified**

## **Measurements of hadron yield from T2K replica target**

*Friday, 28 July 2017 16:00 (20 minutes)*

**Presenter:** PAVIN, Matej (Centre National de la Recherche Scientifique (FR))

**Session Classification:** Session 4

Contribution ID: 31

Type: **not specified**

## **Ideas on improvement of measurements of hadron yield from replica targets**

*Friday, 28 July 2017 16:20 (20 minutes)*

**Presenter:** BLONDEL, Alain (Universite de Geneve (CH))

**Session Classification:** Session 4



Contribution ID: **32**

Type: **not specified**

## **Discussion on neutrino measurements**

*Friday, 28 July 2017 16:40 (30 minutes)*

**Presenter:** ALL

**Session Classification:** Session 4

Contribution ID: 33

Type: **not specified**

## Workshop conclusions and next steps

*Friday, 28 July 2017 17:10 (20 minutes)*

**Presenters:** ZIMMERMAN, Eric Daniel (University of Colorado Boulder (US)); GAZDZICKI, Marek (Johann-Wolfgang-Goethe Univ. (DE))

**Session Classification:** Session 4

Contribution ID: 34

Type: **not specified**

## Charm measurement in ALICE at LHC

*Thursday, 27 July 2017 12:10 (20 minutes)*

**Presenters:** ROSSI, Andrea (Universita e INFN); ROSSI, Andrea (Universita & INFN, Padova); ROSSI, Andrea (CERN); ROSSI, Andrea (Universita e INFN, Padova (IT))

**Session Classification:** Session 1

Contribution ID: 35

Type: **not specified**

## **NA61 beam line for lower energies (1-10 GeV)**

*Friday, 28 July 2017 09:20 (20 minutes)*

**Presenter:** CHARITONIDIS, Nikolaos (CERN)

**Session Classification:** Session 3

Contribution ID: **36**

Type: **not specified**

## **Nu\_tau production**

*Thursday, 27 July 2017 16:00 (20 minutes)*

**Presenter:** ARIGA, Akitaka (Universitaet Bern (CH))

**Session Classification:** Session 2

Contribution ID: 37

Type: **not specified**

## **Elastic scattering at NA61/SHINE 2020**

*Friday, 28 July 2017 12:20 (10 minutes)*

**Presenter:** BRAVAR, Sandro (Universite de Geneve (CH))

**Session Classification:** Session 3

Contribution ID: **38**

Type: **not specified**

## Workshop summary

*Friday, 28 July 2017 18:00 (20 minutes)*

**Presenters:** BLONDEL, Alain (Universite de Geneve (CH)); ZIMMERMAN, Eric Daniel (University of Colorado Boulder (US)); GAZDZICKI, Marek (Johann-Wolfgang-Goethe Univ. (DE)); VON DOETINCHEM, Philip (University of Hawaii at Manoa)

Contribution ID: **39**

Type: **not specified**

## Supporting letters

*Friday, 28 July 2017 18:20 (20 minutes)*