

VIII FOOT Virtual Collaboration Meeting

Wednesday, 10 June 2020 - Friday, 12 June 2020

IPHC 23 rue du Loess F-67037 Strasbourg

Book of Abstracts

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Welcome

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General Remarks

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Editorial Board Report

Authors: Chiara La Tessa¹; Marie Vanstalle²; Mauro Villa³

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Software / 16

Software Status Report

Author: Christian Finck¹

Co-author: Alessio Sarti²

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Update on FOOT Simulation using FLUKA

Authors: Giuseppe Battistoni¹; Silvia Muraro²; Serena Marta Valle³; Yunsheng Dong¹

¹ *MI*

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All about progresses and updates since the last Collaboration Meeting

Software / 29

Z identification with TOF

Authors: Marco Toppi¹; Federica Murtas²

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Corresponding Authors: murtas.1715900@studenti.uniroma1.it, marco.toppi@lnf.infn.it

30 min

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Global reconstruction with Genfit framework

Author: Riccardo Ridolfi¹

¹ *BO*

Global reconstruction with Genfit framework, 20 minutes talk

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Global reconstruction with TOE

Author: Alexandre Sécher¹

¹ *IPHC-CNRS*

Global reconstruction with TOE

Detectors (1) / 20

DAQ Status Report

Detectors (1) / 5

Beam Monitor status

Author: Yunsheng Dong¹

¹ *MI*

Status of the Beam Monitor analysis results

Detectors (1) / 14

Update on the Start Counter

Author: Giacomo Traini¹

¹ *ROMA1*

The Start Counter updated performance measured at GSI in february will be summarized. (~15minutes)

Detectors (1) / 18

VTX-IT Status Report

Detectors (2) / 19

MSD Status Report

Detectors (2) / 27

Status Report of the TOFWAL

Author: MATTEO MORROCCHI¹

¹ *PI*

30 min

Detectors (2) / 4

Status report on the calorimeter development

Author: Piergiorgio Cerello¹

¹ *INFN*

Status of the construction on the calorimeter, open issues and expected timeline

Detectors (2) / 26

Update on the status of the Magnet bid

Author: Andrea Moggi¹

¹ *PI*

30 min

Analysis (i) / 28

Data analysis GSI-CNAO

Author: Aafke Christine Kraan¹

¹ *PI*

30min

Analysis (i) / 9

Temperature monitor results and data analysis of the CNAO test beam

Author: Lorenzo Scavarda¹

¹ *INFN, Sezione di Torino*

The results of the last test beam performed at CNAO in February and an offline method to correct the temperature fluctuation will be presented

Analysis (i) / 30

Tracks and Vertices Reconstruction of GSI 2019 data taking (Oxy@200 MeV on C2H4)

Author: Giuliana Galati¹

Co-authors: Andrey Alexandrov¹; Antonia Di Crescenzo¹; Giovanni De Lellis¹; Valerio Gentile²; Antonio Iuliano¹; Adele Lauria¹; Maria Cristina Montesi¹; Alessandra Pastore³; Valeri Tioukov¹

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Updates on tracks and vertices reconstruction

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Cross Section C-C C-H C-O at forward angles: updates

Author: Ilaria Mattei¹

¹ INFN

Updates

Analysis (i) / 10

Cross section performances

Author: Sofia Colombi¹

¹ University of Trento

Cross section reconstruction and systematic study depending on p, ToF, Ekin.

Analysis (ii) / 25

Neutrons @ FOOT

Author: Cristian Massimi¹

¹ BO

In this talk I will present the study on the possibility to detect neutrons with the current experimental setup. After a brief introduction on neutron detection and detectors, I will present preliminary results obtained from the simulated data of a ^{16}O beam with energy of 200 MeV/u on C_2H_4 . In particular I will show the potential use of the calorimeter to derive some information on high energy neutrons.

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Data taking plans at HIT

Authors: Piergiorgio Cerello¹; Alessio Sarti²

¹ INFN

² LNF

Corresponding Author: piergiorgio.cerello@to.infn.it

Discussion on the proposal to be submitted for taking data at HIT

Analysis (ii) / 12

Charge measurement in Section 2 of GSI 2019 data taking Oxy@200 MeV on C₂H₄

Author: Giuliana Galati¹

Co-authors: Andrey Alexandrov¹; Antonia Di Crescenzo¹; Giovanni De Lellis¹; Valerio Gentile²; Antonio Iuliano¹; Adele Lauria¹; Maria Cristina Montesi¹; Alessandra Pastore³; Valeri Tioukov¹

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The section 2 of the emulsion spectrometer is dedicated to the charge measurement. We will show the results for the exposure ¹⁶O@200 MeV on C₂H₄, done at GSI in 2019.

For the evaluation of differential cross section, the association of tracks in S2 to vertices is crucial. A multivariate approach has been investigated to select vertices coming from the beam and reject those due to random tracks combinations. Results will be shown.

Analysis (ii) / 31

Testing NIT emulsion films

Author: Giovanni De Lellis¹

¹ NA

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Physics Status Report

Author: Roberto Spighi¹

¹ BO

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Experimental area at CNAO

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Low Beam Intensity Monitoring at CNAO

Author: Marco Toppi¹

¹ *LNF*

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General Discussions

Author: Vincenzo Patera¹

¹ *ROMA1*