

# **Mini-Workshop on gas transport parameters for present and future generation of experiments**

## **Report of Contributions**

Contribution ID: 2

Type: **not specified**

## **Tetrafluoropropene-based gas mixtures for Resistive Plate Chambers: an experimental and simulation study**

*Thursday 22 April 2021 11:30 (15 minutes)*

**Presenter:** BIANCHI, Antonio (CERN)

**Session Classification:** Status of measurements of alternative gases for large experiments

Contribution ID: 3

Type: **not specified**

## **Characterization of new eco friendly gas mixtures for RPCs mainly based on HFO**

*Thursday 22 April 2021 11:45 (15 minutes)*

**Presenter:** PROTO, Giorgia (INFN e Universita Roma Tor Vergata (IT))

**Session Classification:** Status of measurements of alternative gases for large experiments

Contribution ID: 4

Type: **not specified**

## **Studies on RPC operation with low GWP gases**

*Thursday 22 April 2021 12:15 (15 minutes)*

**Presenter:** RIGOLETTI, Gianluca (Universite Claude Bernard Lyon I (FR))

**Session Classification:** Status of measurements of alternative gases for large experiments

Contribution ID: 5

Type: **not specified**

## **Overview of RPC operation with HFO-CO<sub>2</sub> based mixtures at the GIF++ facility**

*Thursday 22 April 2021 12:30 (15 minutes)*

**Presenters:** RIGOLETTI, Gianluca (Universite Claude Bernard Lyon I (FR)); ECOGAS@GIF++ FOR RPC DETECTOR COLLABORATION

**Session Classification:** Status of measurements of alternative gases for large experiments

Contribution ID: 6

Type: **not specified**

## Towards Sealed Resistive Plate Chambers

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

**Presenters:** VIEIRA LOPES, Luis Alberto (Universidade de Coimbra (PT)); LOPES, Luis (Lip)

**Session Classification:** Status of measurements of alternative gases for large experiments

Contribution ID: 7

Type: **not specified**

## Gas mixture considerations for the CBM TOF system

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

**Presenter:** DEPPNER, Ingo-Martin (Physikalisches Institut der Universität Heidelberg)

**Session Classification:** Status of measurements of alternative gases for large experiments

Contribution ID: 8

Type: **not specified**

## **Strategies for the reduction of the C<sub>2</sub>H<sub>2</sub>F<sub>4</sub> emission in the MRPC array of the EEE experiment**

*Thursday 22 April 2021 14:30 (15 minutes)*

**Presenters:** ABBRESCIA, Marcello (Universita e INFN, Bari (IT)); ABBRESCIA, Marcello (Bari Physics Department and INFN); PANETTA, Maria Paola (INFN - National Institute for Nuclear Physics)

**Session Classification:** Status of measurements of alternative gases for large experiments



Contribution ID: 9

Type: **not specified**

## Searches for CF<sub>4</sub> replacement for the CSC gas mixture

*Thursday 22 April 2021 14:45 (15 minutes)*

**Presenter:** KUZNETSOVA, Katerina (NRC Kurchatov Institute PNPI (RU))

**Session Classification:** Status of measurements of alternative gases for large experiments

Contribution ID: **10**

Type: **not specified**

## Options for alternate radiators in LHCb-RICH system

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

**Presenter:** EASO, Sajan (Science and Technology Facilities Council STFC (GB))

**Session Classification:** Status of measurements of alternative gases for large experiments

Contribution ID: 11

Type: **not specified**

## **LNF Test results of Resistive Plate Chambers operated with eco-friendly gas mixtures for application in the CMS experiment**

*Thursday 22 April 2021 12:00 (15 minutes)*

**Presenter:** PICCOLO, Davide (INFN e Laboratori Nazionali di Frascati (IT))

**Session Classification:** Status of measurements of alternative gases for large experiments

Contribution ID: **12**

Type: **not specified**

## Introduction

*Thursday 22 April 2021 16:00 (20 minutes)*

Introduction, Measurement requirements from Simulation point of view, Requests for future development, overview of old measurements used in Magboltz

**Presenter:** BIAGI, Stephen (University of Liverpool)

**Session Classification:** Cross Sections, Simulations & Measurement techniques

Contribution ID: **13**

Type: **not specified**

## LXCAT

*Thursday 22 April 2021 16:20 (15 minutes)*

Overview of the LXCat database and future use

**Presenters:** Prof. CARBONE, Emile (Institut National de la Recherche Scientifique); Prof. PITCH-FORD, Leanne (Laplace, CNRS & Université de Toulouse)

**Session Classification:** Cross Sections, Simulations & Measurement techniques

Contribution ID: 14

Type: **not specified**

## Laser Measurements @ HZDR

*Thursday 22 April 2021 16:35 (15 minutes)*

Measurement of Townsend and Attachment coefficient and drift velocity in RPC gas mixtures with UV Laser

**Presenters:** NAUMANN, Lothar (Helmholtz-Zentrum Dresden Rossendorf (DE)); NAUMANN, Lothar; NAUMANN, Lothar (Forschungszentrum Dresden Rossendorf); FAN, Xingming (HZDR)

**Session Classification:** Cross Sections, Simulations & Measurement techniques

Contribution ID: 15

Type: **not specified**

## HFO1234ze measurements

*Thursday 22 April 2021 16:50 (15 minutes)*

Overview of townsend and electron drift velocity measurements at ETZH

**Presenters:** Prof. FRANCK, Christian (ETH Zürich); Ms EGÜZ, Eda (ETH Zürich)

**Session Classification:** Cross Sections, Simulations & Measurement techniques

Contribution ID: 16

Type: **not specified**

## **T2K gas transport measurements**

*Thursday 22 April 2021 17:05 (15 minutes)*

**Presenters:** HAMACHER-BAUMANN, Philip (RWTH Aachen University); HAMACHER-BAUMANN, Philip (RWTH Aachen University)

**Session Classification:** Cross Sections, Simulations & Measurement techniques



Contribution ID: 17

Type: **not specified**

## **F-gases usage in the ALICE experiment**

*Thursday 22 April 2021 09:45 (20 minutes)*

**Presenter:** QUAGLIA, Luca (Universita e INFN Torino (IT))

**Session Classification:** Experiments at CERN with F gases

Contribution ID: **18**

Type: **not specified**

## **F-gases usage and reduction strategy plan in the ATLAS and CMS experiments**

*Thursday 22 April 2021 10:05 (30 minutes)*

**Presenter:** PUGLIESE, Gabriella (Universita e INFN, Bari (IT))

**Session Classification:** Experiments at CERN with F gases

Contribution ID: **19**

Type: **not specified**

## **LHCb-RICH detectors and their gas radiators**

**Presenter:** EASO, Sajan (Science and Technology Facilities Council STFC (GB))

**Session Classification:** Experiments at CERN with F gases

Contribution ID: 20

Type: **not specified**

## **R&D for the optimization of the use of greenhouse gases in particle detector systems**

*Thursday 22 April 2021 10:55 (20 minutes)*

**Presenter:** MANDELLI, Beatrice (CERN)

**Session Classification:** Experiments at CERN with F gases

Contribution ID: 21

Type: **not specified**

## Use of Cross Sections in Simulations

**Presenter:** BIAGI, Stephen (University of Liverpool)

**Session Classification:** Cross sections and Simulation techniques

Contribution ID: 22

Type: **not specified**

## **Proposal for a Setup for microscopic gas properties measurement at Bari**

*Thursday 22 April 2021 17:20 (10 minutes)*

**Presenter:** RADOGNA, Raffaella (Universita e INFN, Bari (IT))

**Session Classification:** Cross Sections, Simulations & Measurement techniques

Contribution ID: 23

Type: **not specified**

## Discussion

*Thursday 22 April 2021 12:45 (15 minutes)*

**Session Classification:** Status of measurements of alternative gases for large experiments

Contribution ID: 24

Type: **not specified**

## **LHCb-RICH detectors and their gas radiators**

*Thursday 22 April 2021 10:35 (20 minutes)*

**Presenter:** EASO, Sajan (Science and Technology Facilities Council STFC (GB))

**Session Classification:** Experiments at CERN with F gases