

# **Background Mitigation Strategies Workshop**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## **Review Committee Executive Session**

*Monday, 20 July 2020 09:00 (30 minutes)*

Review of outstanding issues from last review. Discussion of questions and concerns prior to hearing presentations.

**Presenter:** SVOBODA, Robert (UC Davis)

Contribution ID: 2

Type: **not specified**

## **Radon-induced backgrounds: Introduction with Sources and Assay Overview**

*Monday, 20 July 2020 10:30 (20 minutes)*

**Presenter:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology)

Contribution ID: 3

Type: **not specified**

## External Neutrons: Introduction

*Wednesday, 22 July 2020 11:00 (10 minutes)*

**Presenter:** PEETERS, Simon (University of Sussex)

Contribution ID: 4

Type: **not specified**

## **Detector and Conventional Facilities Materials Assay Results: Introduction, Steel & Foam Results, and Outlook**

*Wednesday, 22 July 2020 09:00 (15 minutes)*

**Presenter:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology)

Contribution ID: 5

Type: **not specified**

## **Detector Cleanliness: Cleanliness Requirements**

*Thursday, 23 July 2020 09:00 (30 minutes)*

**Presenter:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology)

Contribution ID: 6

Type: **not specified**

## Review Committee Discussion

*Thursday, 23 July 2020 11:20 (1h 40m)*

Contribution ID: 7

Type: **not specified**

## **Working Group Responses to Review Committee Questions**



Contribution ID: 8

Type: **not specified**

## Working Group Responses to Review Committee Questions

*Wednesday, 29 July 2020 11:30 (1h 30m)*

**Presenters:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology); PEETERS, Simon (University of Sussex)

Contribution ID: 9

Type: **not specified**

## Workshop Closeout

Contribution ID: **10**

Type: **not specified**

## **Physics Motivations: Supernova Sensitivity**

*Monday, 20 July 2020 09:30 (10 minutes)*

**Presenters:** BEZERRA, Thiago; SOGO BEZERRA, Thiago (University of Sussex)

Contribution ID: 11

Type: **not specified**

## **Future Plans for Detector Materials Assay Program: Database and Simulation Plans**

*Wednesday, 22 July 2020 09:50 (20 minutes)*

**Presenters:** JACKSON, Christopher (PNNL); CHURCH, Eric (PNNL)

Contribution ID: 12

Type: **not specified**

## **Low Background Detector Module Discussion: Physics Potential**

*Thursday, 23 July 2020 10:30 (30 minutes)*

**Presenter:** CHURCH, Eric (PNNL)

Contribution ID: 13

Type: **not specified**

## Executive Discussion

*Monday, 20 July 2020 12:45 (15 minutes)*

Contribution ID: 14

Type: **not specified**

## Executive Session

Contribution ID: 15

Type: **not specified**

## **Executive Session**

*Wednesday, 22 July 2020 12:45 (15 minutes)*



Contribution ID: 16

Type: **not specified**

## **Radon-Induced Backgrounds: Alpha-n Backgrounds**

*Monday, 20 July 2020 11:40 (15 minutes)*

**Presenter:** KUDRYAVTSEV, Vitaly (University of Sheffield)

Contribution ID: 17

Type: **not specified**

## Physics Motivations: Solar Sensitivity

*Monday, 20 July 2020 09:50 (10 minutes)*

**Presenter:** PERSHEY, Daniel

Contribution ID: **18**

Type: **not specified**

# Physics Motivations: Solar Neutrino Anomaly and NSI

*Monday, 20 July 2020 10:00 (10 minutes)*

**Presenter:** SINEV, Gleb (Duke University)

Contribution ID: 19

Type: **not specified**

## **Physics Motivations: Overview of New Background Model**

*Monday, 20 July 2020 10:10 (20 minutes)*

**Presenter:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology)

Contribution ID: 20

Type: **not specified**

## **Radon-Induced Backgrounds: Simulation Updates**

*Monday, 20 July 2020 10:50 (15 minutes)*

**Presenter:** LASORAK, Pierre

Contribution ID: 21

Type: **not specified**

## **Radon-Induced Backgrounds: Cold Emanation**

*Monday, 20 July 2020 11:05 (15 minutes)*

**Presenter:** BUSTO, Jose

Contribution ID: 22

Type: **not specified**

## **Radon-Induced Backgrounds: Alpha-gamma Background**

*Monday, 20 July 2020 11:55 (15 minutes)*

**Presenter:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology)

Contribution ID: 23

Type: **not specified**

## **Radon-Induced Backgrounds: Drift of Ions in LAr and Plate-out**

*Monday, 20 July 2020 12:10 (15 minutes)*

**Presenters:** NAVRER-AGASSON, Anyssa (University of Manchester); NAVRER-AGASSON, Anyssa



Contribution ID: 24

Type: **not specified**

## **Radon-Induced Backgrounds: Alpha Scintillation Light**

*Monday, 20 July 2020 12:25 (20 minutes)*

**Presenters:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology); MOONEY, Michael (Colorado State University)

Contribution ID: 25

Type: **not specified**

## **Detector and Conventional Facilities Materials Assay Results: Rock, Shotcrete, and Concrete Results**

*Wednesday, 22 July 2020 09:15 (15 minutes)*

**Presenters:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology); X, Serenity

Contribution ID: 26

Type: **not specified**

## **Detector and Conventional Facilities Materials Assay Results: Filter, APA, and Other Results**

*Wednesday, 22 July 2020 09:30 (20 minutes)*

**Presenter:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology)

Contribution ID: 27

Type: **not specified**

## **Future Plans for Detector Materials Assay Program: Overview on Assay Facilities, Capabilities, and Capacities**

*Wednesday, 22 July 2020 10:10 (15 minutes)*

**Presenter:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology)

Contribution ID: 28

Type: **not specified**

## **Future Plans for Detector Materials Assay Program: Interaction with Consortia and TC**

*Wednesday, 22 July 2020 10:25 (15 minutes)*

**Presenter:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology)

Contribution ID: 29

Type: **not specified**

## **External Neutrons: From 2x6x1 to Full Detector Simulation**

*Wednesday, 22 July 2020 11:10 (15 minutes)*

**Presenter:** BORKUM, Aran (University of Sussex)

Contribution ID: **30**

Type: **not specified**

## **External Neutrons: Material Properties**

*Wednesday, 22 July 2020 11:25 (15 minutes)*

**Presenter:** HAISTON, James (South Dakota School of Mines and Technology, Graduate Student)

Contribution ID: **31**

Type: **not specified**

## **External Neutrons: Validation**

*Wednesday, 22 July 2020 11:40 (15 minutes)*

**Presenter:** CHURCH, Eric (PNNL)



Contribution ID: 32

Type: **not specified**

## **External Neutrons: Neutron Flux Measurements**

*Wednesday, 22 July 2020 11:55 (15 minutes)*

**Presenter:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology)

Contribution ID: 33

Type: **not specified**

## **External Neutrons: Neutron Flux Models**

*Wednesday, 22 July 2020 12:10 (15 minutes)*

**Presenter:** KUDRYAVTSEV, Vitaly (University of Sheffield)

Contribution ID: 34

Type: **not specified**

## **External Neutrons: Simulation Results with Full 10 k-ton Geometry**

*Wednesday, 22 July 2020 12:25 (20 minutes)*

**Presenter:** BORKUM, Aran (University of Sussex)

Contribution ID: 35

Type: **not specified**

## **Detector Cleanliness: Mitigation Strategies to Improve Cleanliness**

*Thursday, 23 July 2020 09:30 (30 minutes)*

**Presenter:** REICHENBACHER, Juergen (South Dakota School of Mines and Technology)

Contribution ID: 36

Type: **not specified**

## **Low Background Detector Potential: Expected Requirements**

*Thursday, 23 July 2020 10:00 (30 minutes)*

**Presenter:** JACKSON, Christopher (PNNL)

Contribution ID: 37

Type: **not specified**

## **Physics Motivations: Supernovae Late-time Detection**

*Monday, 20 July 2020 09:40 (10 minutes)*

**Presenter:** LI, Shirley (SLAC National Accelerator Laboratory)