Background Mitigation Strategies Workshop

Report of Contributions

https://indico.fnal.gov/e/43870

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)