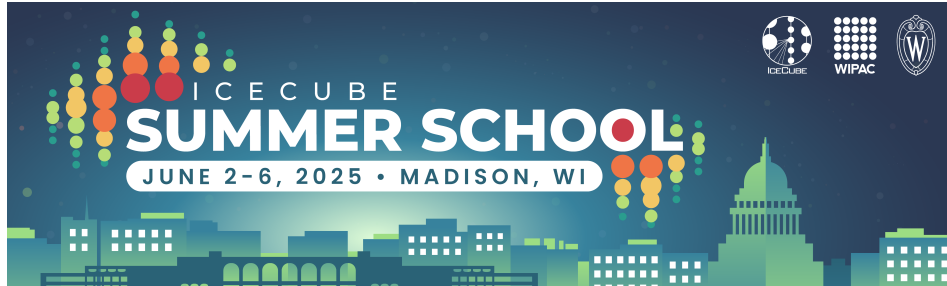# IceCube Summer School 2025



# Report of Contributions

Contribution ID: **1**       Type: **not specified**

# IceCube Detector

*Monday, 2 June 2025 09:50 (40 minutes)*

Jim Braun

**Presenter:** BRAUN, Jim (University of Wisconsin–Madison)

**Session Classification:** Detector and Calibration

Contribution ID: 2

Type: **not specified**

# Neutrino Physics

*Monday, 2 June 2025 11:00 (40 minutes)*

**Presenter:** BALANTEKIN, Baha

**Session Classification:** Physics

Contribution ID: **3**                                                    Type: **not specified**

# Cosmic rays

*Monday, 2 June 2025 13:00 (40 minutes)*

**Presenter:**   KOUNDAL, Paras (Bartol Research Institute, University of Delaware)

**Session Classification:**   Physics

Contribution ID: 4                                                 Type: **not specified**

# BSM physics with IceCube (including dark matter)

*Monday, 2 June 2025 13:40 (40 minutes)*

**Presenter:**   HOOPER, Dan

**Session Classification:**   Physics

Contribution ID: **5**                                          Type: **not specified**

# Intro to Python

*Monday, 2 June 2025 14:50 (1 hour)*

**Presenter:**   MAND, Alicia (University of Wisconsin - Madison)

**Session Classification:**   Workshop

Contribution ID: **6** Type: **not specified**

# IceCube Science

*Monday, 2 June 2025 09:10 (40 minutes)*

**Presenter:** HALZEN, Francis (University of Wisconsin–Madison)

**Session Classification:** Physics

Contribution ID: **7**                                    Type: **not specified**

# Icecube upgrade talk

*Thursday, 5 June 2025 10:50 (40 minutes)*

**Presenter:**   KARLE, Albrecht (University of Wisconsin–Madison)

**Session Classification:**   Detector and Calibration

Contribution ID: **9**                                            Type: **not specified**

# Diffuse neutrinos - from TeV to EeV

*Tuesday, 3 June 2025 10:50 (40 minutes)*

Lu Lu

**Presenter:**   LU, Lu (University of Wisconsin–Madison)

**Session Classification:**   Physics

Contribution ID: **13**

Type: **not specified**

# Cosmic ray anisotropy

*Tuesday, 3 June 2025 09:40 (40 minutes)*

**Presenter:** ZILBERMAN, Perri (University of Wisconsin - Madison)

**Session Classification:** Physics

Contribution ID: **16**                                     Type: **not specified**

# Detector Physics

*Tuesday, 3 June 2025 13:00 (40 minutes)*

**Presenter:**   Prof. VANDENBROUCKE, Justin (University of Wisconsin–Madison)

**Session Classification:**   Detector and Calibration

Contribution ID: **17**                                                        Type: **not specified**

# Github talk

*Tuesday, 3 June 2025 13:40 (40 minutes)*

**Presenter:**   THWAITES, Jessie (University of Wisconsin–Madison)

**Session Classification:**   Software and computing

Contribution ID: **19**                                                      Type: **not specified**

# JupyterHub, NPX, Grid, Github

*Tuesday, 3 June 2025 14:50 (1 hour)*

**Presenter:**   THWAITES, Jessie (University of Wisconsin–Madison)

**Session Classification:**   Workshop

Contribution ID: **20**                                                        Type: **not specified**

# Multimessenger

*Wednesday, 4 June 2025 09:00 (40 minutes)*

**Presenter:**   PARTENHEIMER, Angelina (UW-Madison)

**Session Classification:**   Physics

Contribution ID: **21** Type: **not specified**

# Neutrino sources

*Wednesday, 4 June 2025 10:50 (40 minutes)*

**Presenter:** BHATTACHARYA, Mukul

**Session Classification:** Physics

Contribution ID: **23**                                              Type: **not specified**

# Astrophysics of compact objects

*Wednesday, 4 June 2025 09:40 (40 minutes)*

**Presenter:**   STONE, Nick

**Session Classification:**   Physics

Contribution ID: **26**

Type: **not specified**

# Neutrinos in Radio Waves

*Wednesday, 4 June 2025 13:00 (40 minutes)*

**Presenter:** DUVERNOIS, Michael (University of Wisconsin–Madison)

**Session Classification:** Physics

Contribution ID: **27**                                    Type: **not specified**

# Icetray talk

*Wednesday, 4 June 2025 13:40 (40 minutes)*

**Presenter:**   ERPENBECK, Hannah (UW-Madison)

**Session Classification:**   Software and computing

Contribution ID: **29**                                                    Type: **not specified**

# I3 File Tools & SteamShovel

*Wednesday, 4 June 2025 14:50 (1 hour)*

**Presenters:**   ERPENBECK, Hannah (UW-Madison);   NAKOS, Maxwell

**Session Classification:**   Workshop

Contribution ID: **30**                                              Type: **not specified**

# IceCube Event Selections

*Thursday, 5 June 2025 09:00 (40 minutes)*

**Presenter:**   RECHAV, Zoe (University of Wisconsin–Madison)

**Session Classification:**   Data and Analysis

Contribution ID: **31**                                    Type: **not specified**

# winterover: Life at the South Pole

*Tuesday, 3 June 2025 09:00 (40 minutes)*

**Presenter:**   MAKINO, Yuya (University of Wisconsin–Madison)

**Session Classification:**   Detector and Calibration

Contribution ID: **33** Type: **not specified**

# IceCube Analyses

*Thursday, 5 June 2025 09:40 (40 minutes)*

**Presenter:** YILDIZCI, Emre (University of Wisconsin-Madison)

**Session Classification:** Data and Analysis

Contribution ID: 35                                                     Type: **not specified**

# Machine Learning and Neural Networks, and exercise

*Thursday, 5 June 2025 13:00 (1h 30m)*

**Presenter:**   PETERSON, Josh (University of Wisconsin–Madison)

**Session Classification:**   Workshop

Contribution ID: **37** Type: **not specified**

# charge collection, digitization, and processing/filtering at the Pole

*Thursday, 5 June 2025 15:00 (40 minutes)*

**Presenter:** GARCIA, Miles (University of Delaware)

**Session Classification:** Detector and Calibration

Contribution ID: **38**        Type: **not specified**

# IceCube Simulation

*Friday, 6 June 2025 09:00 (40 minutes)*

**Presenter:** DÍAZ VÉLEZ, Juan Carlos (University of Wisconsin–Madison)

**Session Classification:** Data and Analysis

Contribution ID: **39** Type: **not specified**

# IceCube Calibration & Ice Models

*Friday, 6 June 2025 09:40 (40 minutes)*

**Presenter:** Mr CHIRKIN, Dmitry (University of Wisconsin–Madison)

**Session Classification:** Detector and Calibration

Contribution ID: **41**                                      Type: **not specified**

# Event Reconstructions

*Friday, 6 June 2025 10:50 (40 minutes)*

**Presenter:**   YUAN, Tianlu (University of Wisconsin–Madison)

**Session Classification:**   Data and Analysis

Contribution ID: 43    Type: **not specified**

# Diffuse Exercise

*Friday, 6 June 2025 13:00 (1 hour)*

**Presenter:**   OSBORN, Jesse (University of Wisconsin - Madison)

**Session Classification:**   Workshop