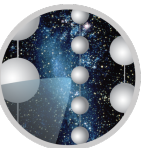


Public Data Releases Data Curation and Analysis Software

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Working Group Structure

Analysis Coord.	Deputy Analysis Coord.
A. Franckowiak	I. Taboada

Science WG	Leads	Technical Leads
Neutrino Sources	M. Ahlers, J. Vandenbroucke	H. Niederhausen, M. Larson, S. Sclafani
Diffuse	N. Whitehorn, L. Lu, C. Kopper	M. Meier
Oscillations	T. Stuttard, B. Jones	P. Eller
Beyond the Standard Model	A. Pollman, J.A. Aguilar	C. Argüelles
Supernovae	S. BenZvi, E. O'Sullivan	
Cosmic Rays	D. Soldin, A. Haungs	K. Rawlings

Technical WG	Leads
Realtime	E. Blaufuss
Reconstruction	J. van Santen, C. Haack
Calibration	A. Halgren, M. Rongen

WG technical lead tasks

Review that every analysis approved for unblinding is documented, and uses a tagged software version on github (formerly also SVN)

Software: Check analysis reproducibility using tagged software.

- This is an item we can improve on. Currently checking only analysis reproducibility. We should also require tagged scripts for paper plots.

Data Curation: Review and tag analysis-level data versions. This facilitates data reuse and reproducibility. This is working very well. Analysis-level data may consist of, e.g. neutrino-rich (atmospheric mostly) data or prior-to-last-cut data for a magnetic monopole study.

Tech leads maintain wiki of recommended analysis software and data versions.

Smaller WG are less advanced in their implementation of these guidelines.

“General” 10-year Point Source data.

We are releasing (neutrino level) data for the paper: PRL 124, 051103 (2020). Includes event times, even though that’s not part of PRL publication.

The same as internally tagged data version (psTracks v3.2)

To be posted here: https://icecube.wisc.edu/science/data/PS-IC40-IC86_VII

For the first time we have an arXiv posting, reviewed like a conf. proceeding, describing the data release. [arXiv:2101.09836](https://arxiv.org/abs/2101.09836)

For the first time we provide a) Neutrino effective area vs. declination and neutrino energy b) smearing matrices from neutrino energy and angular uncertainty, both as function of energy and declination.

For the first time we provide scripts that (up to numerical unc.) allows anybody to reproduce our published results. [Scripts coming up within a couple of weeks]

This public release will serve as guideline for future, regular data releases.

Publication-driven data releases

We also have data releases directly tied to publications. What is released is in part guided by Journal requirements.

Example:

IceCube data for TXS 0506+056 from April 5, 2008 to October 17, 2017

https://icecube.wisc.edu/science/data/TXS0506_point_source

Science 361 (2018) 147-151

Future improvement needed: always release plots in text/computer readable form.