

Data Description

2024 年度プロジェクト : DB2024-12

Data Number (will be filled by the Commons Center)	DPPSCdbp_2024-12en
Title	Monitoring of Ground-Level Cosmic Ray Muon Count Rates
Creator	TAKEUCHI, Yuji UKEGAWA, Fumihiko
Contact information	takeuchi@hep.px.tsukuba.ac.jp
Summary (Subject and/or Methodology for generation)	Two plastic scintillators (size: L850 mm × W150 mm × T5 mm) are stacked, and the number of charged particles passing through both simultaneously is counted and recorded every second.
Update History (Versions, File names, Dates)	data.T240219.zip 2024-02-19 17:27:11 ~ 2024-04-19 16:11:40 data.T240421.zip 2024-04-21 17:38:58 ~ 2024-07-03 18:57:39 data.T241227.zip 2024-12-27 17:39:53 ~ 2025-04-01 10:50:21 data.T250401.zip 2025-04-01 12:34:03 ~ 2025-04-10 11:03:53 https://hep-www.px.tsukuba.ac.jp/~exp3/MuonRateMonitor/dataRepo.html
Data formats	The ZIP archive contains a text file in which each line records two space-separated values: • Timestamp (Unix time, in milliseconds) • Muon count rate (number of coincident charged particles per second)
Data sizes	data.T240219.zip (23MB; uncompressed: 84MB) data.T240421.zip (27MB; uncompressed: 102MB) data.T241227.zip (35MB; uncompressed: 132MB) data.T250401.zip (3MB; uncompressed: 13MB)
Things to be aware of when using the data (e.g., required metadata)	The detection efficiency depends on the high-voltage settings of the photomultiplier tubes (PMTs) used. While the PMT voltages remain constant within a single data file, they may vary between files, resulting in differences in the absolute count rates.
Related reports and/or papers	Cosmic Ray Muon Rate Monitor — Web Portal https://hep-www.px.tsukuba.ac.jp/~exp3/MuonRateMonitor/index.html
Other remarks	