

**Title:** PERiLS 2023 UAH MAPNet MIPS Parsivel Disdrometer Dataset

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## 1.0 Dataset Overview

The UAH Mobile Atmospheric Profiling Network (MAPNet) Mobile Profiling System (MIPS) disdrometer was deployed onboard the MIPS platform for all 5 PERiLS IOPs.

IOP 1

Time Period: 2023/02/16 1430Z to 2023/02/17 0118Z

Location: 32.9137, -87.8689 elevation: 67 m

IOP 2

Time Period: 2022/03/03 0015Z to 2022/03/03 11Z

Location: 34.6038, -91.1962 elevation: 56 m

IOP 3

Time Period: 2022/03/24 1627Z to 2022/03/25 0208Z

Location: 33.123954, -91.381511 elevation: 33 m

IOP 4

Time Period: 2022/03/31 15Z to 2022/04/01 0800Z

Location: 34.724, -86.6463 elevation: 207 m

IOP 5

Time Period: 2022/04/05 1115Z to 2022/04/05 1830Z

Location: 35.799629, -91.140336 elevation: 75 m

## 2.0 Instrument Description

UAH utilizes the OTT Hydromet Parsivel<sup>2</sup>.

More information regarding the MIPS system can be found here:

<https://www.nsstc.uah.edu/mapnet/facilities/mips.php>

## 3.0 Data Collection and Processing

Data is collected every 10 seconds in tabular format. No processing has been completed.

## 4.0 Data Format

The UAH Parsivel data files are standard CSV files and follow the naming convention:

platform\_YYYYMMDD\_parsivel.dat, where:

platform -> platform parsivel is on

YYYY -> year

MM -> month

DD -> day

Column Identifiers:

COLUMN VARIABLE

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0 -> Year

1 -> Julian Day

2 -> Hour & minute, Seconds(UTC)

3 -> sensor temperature (C)

4 -> total number of detected particles

5 -> rainfall intensity (mm/hr)

6-37 -> N(D) (log[m<sup>-1</sup> mm<sup>-3</sup>])

38-69 -> V(D) (m/s)