

3D Rain Gauge and rainfall observation at the summit of Mt.Fuji

MATSUDA, Masuyoshi^{1*}, Makoto Shimamura²

¹MTS Institute Inc., ²Disaster Prevention Research Laboratory, East Japan Railway Company

New rain gauge so-called 3-dimensional rain gauge was developed and is able to measure the quantity and also the direction of blowing rain drops of wide range from fog to heavy rainfall under strong wind conditions. Once a rain gauge had been installed on the top of Mt. Fuji, it was removed due to the question of data reliability under strong wind blowing. The authors tried and proved that the new rain gauge could work suitably on the top of Mt. Fuji.

Keywords: 3D Rain Gauge, Rainfall direction, Rainfall observation, Mt.Fuji summit



転倒マス雨量計
 3次元雨量計
 3D転倒マス雨量計
 超音波3次元風向風速計
 図2 富士山頂での設置状況

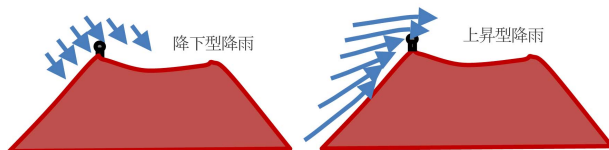


図3 降下型降雨と上昇型降雨の模式図

表-1 3次元雨量計の仕様

部位	項目	仕様
受水部	受水口(セル)数	12 (4方位×3傾斜)
	受水可能な雨水の飛来傾斜角	天頂から135°
	計算可能な雨水の飛来傾斜角	天頂から90°
計測部	解像度	1 drop
	最少計測雨水重量	0.1g
	分解能	20 drops/sec
	計測時間間隔	1sec以上、自由設定
	感応時間の長さ	2sec以内 (降雨開始直後を除く)