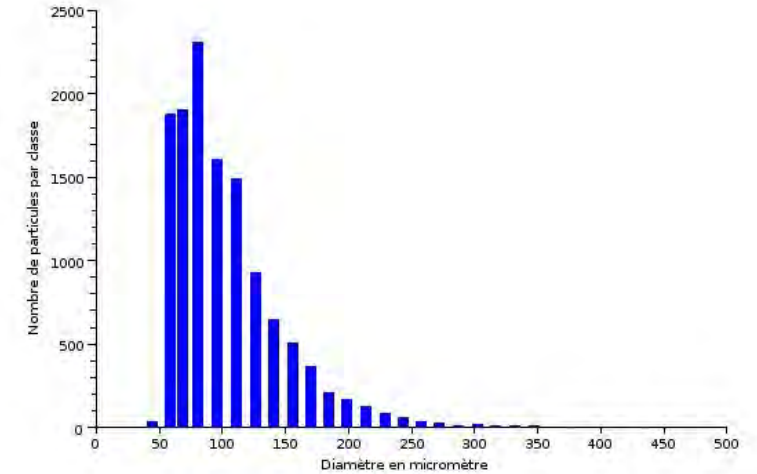
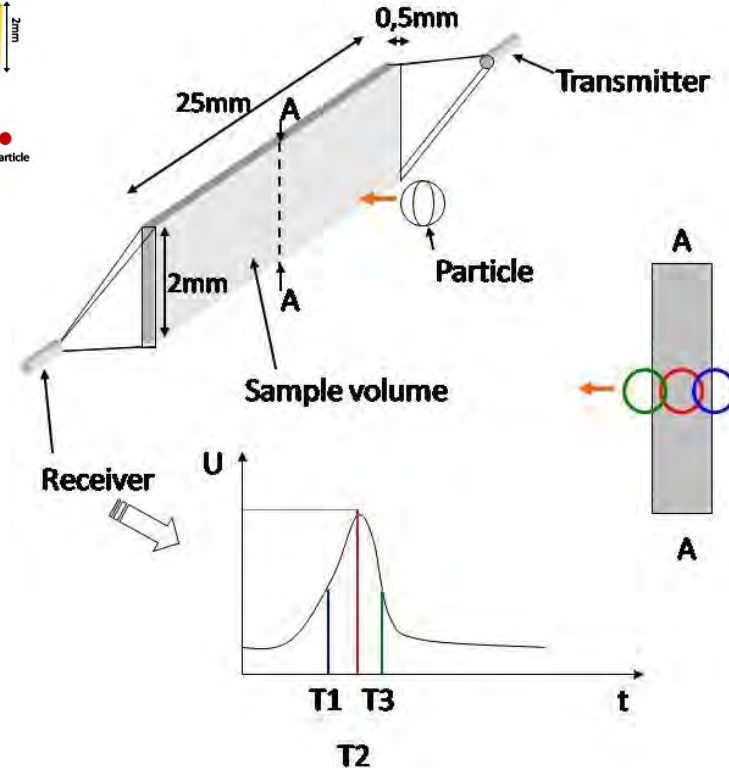
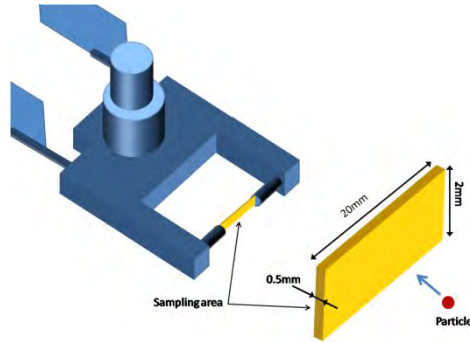


# Observations menés sur la taille des particules de neige via le Snow Particle Counter (SPC).



# Snow Particle Counter (SPC).



**SPC7**

32 classes de tailles de particules 40µm à 500µm

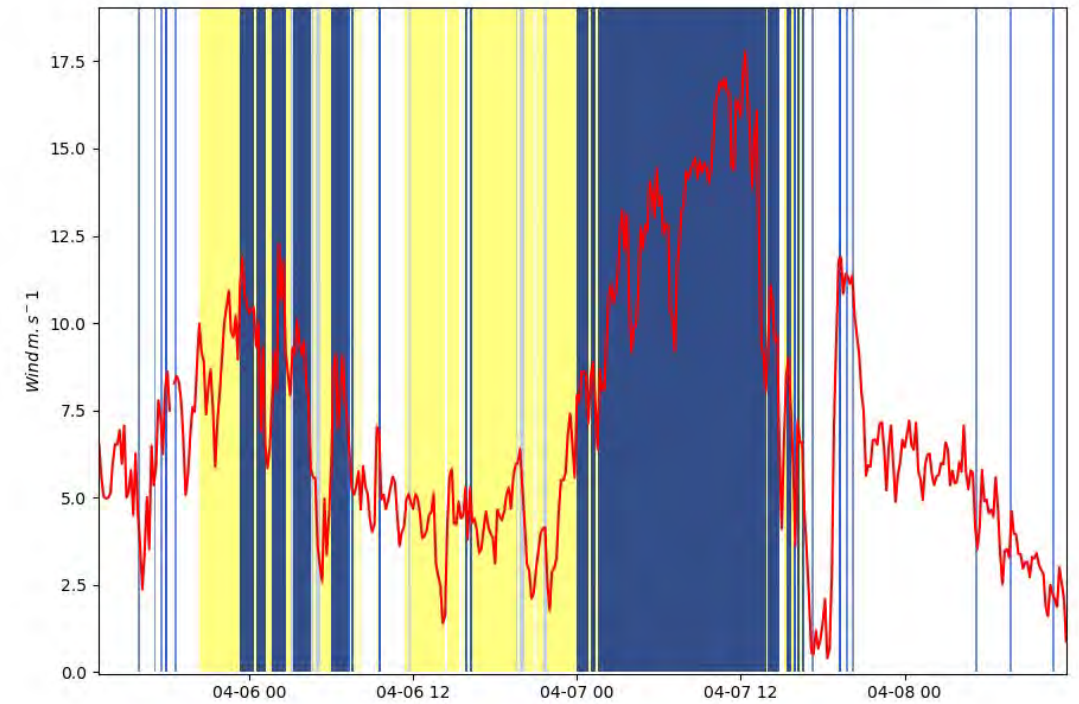
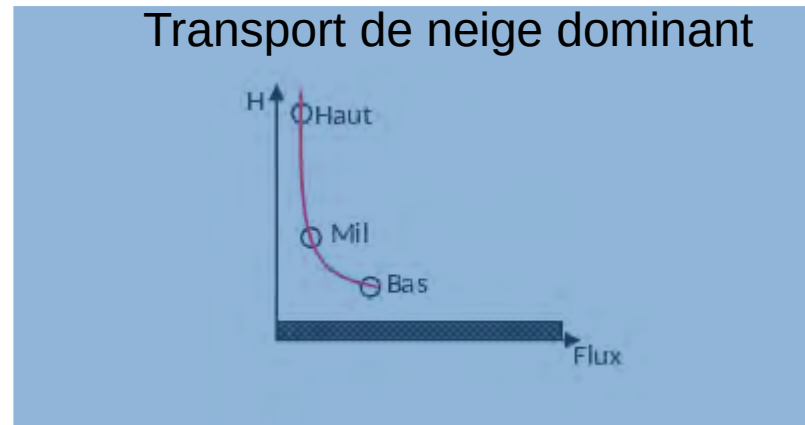
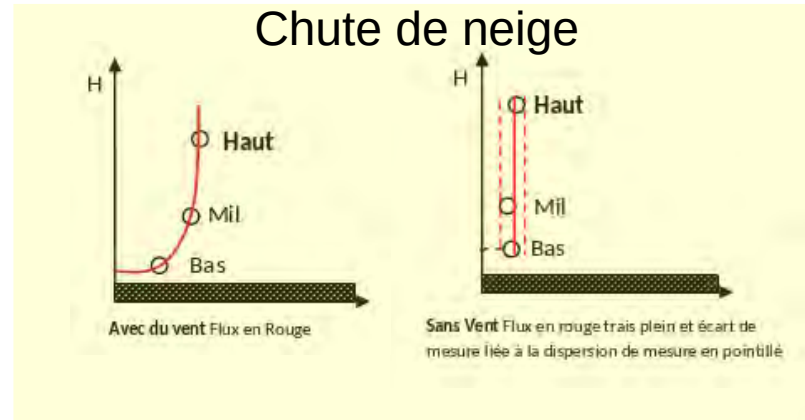
$$\text{Flux} = \sum_{n=0}^{31} x_n \times \frac{4}{3} \cdot \pi \cdot D_n^3 \times \rho / S_f / t$$

**New SPC950 :**

64 classes de tailles de particules 40µm à 500µm

T. Sato, T. Kimura, T. Ishimaru, T. Maruyama Filed test of a new snow-particle counter (SPC) system .  
Annals of Glaciology, 18 1993  
F. Naaim-Bouvet, H. Bellot and M. Naaim. 2010 Back analysis of drifting snow measurements over an  
instrumented mountainous site. Annals of Glaciology, 51(54)

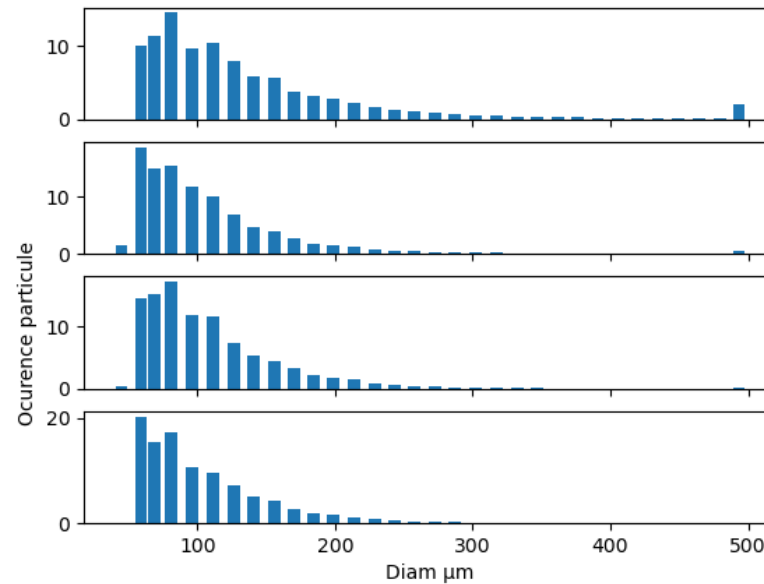
# Snow Particle Counter Lac Blanc.



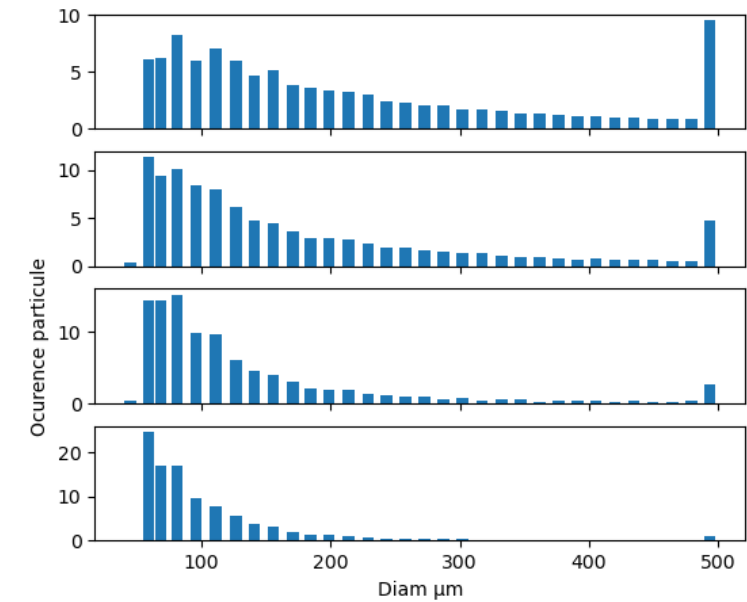
# Snow Particle Counter Lac Blanc.



Transport de neige dominant



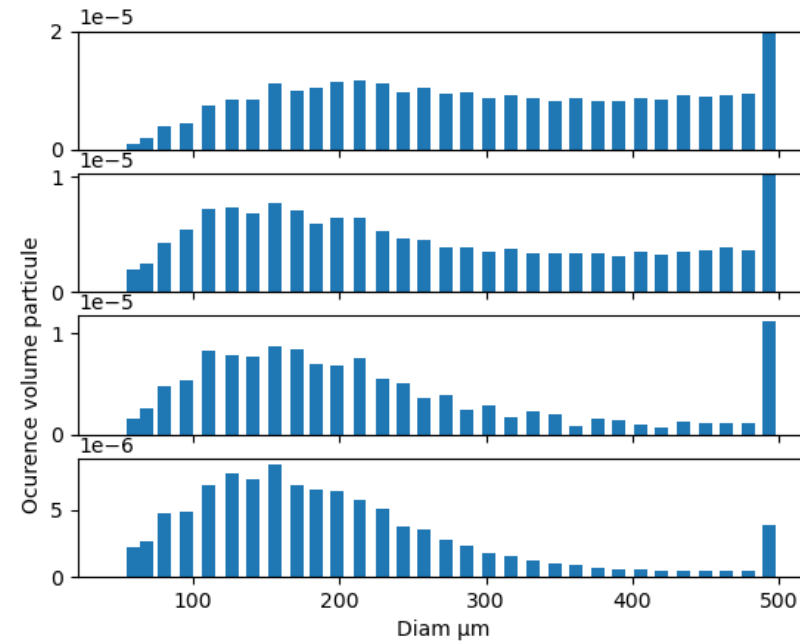
Chute de neige



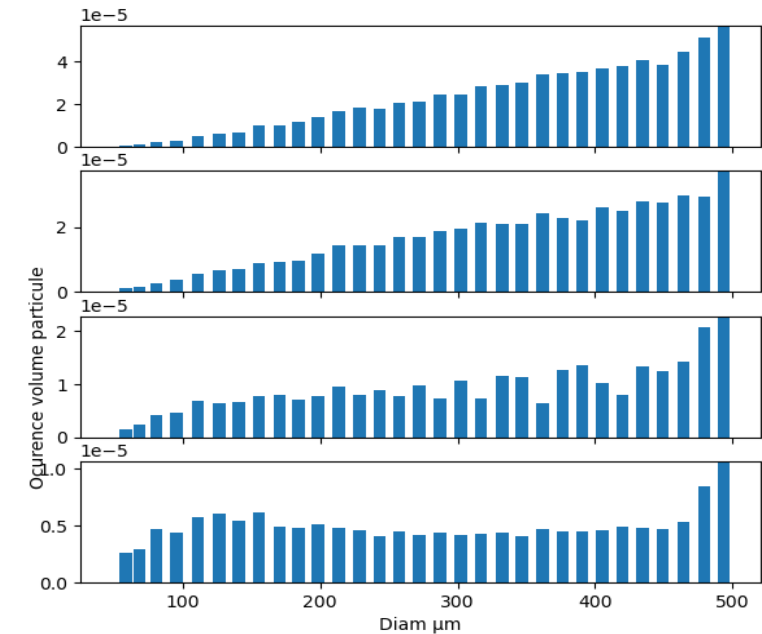
# Snow Particle Counter Lac Blanc.



Transport de neige dominant

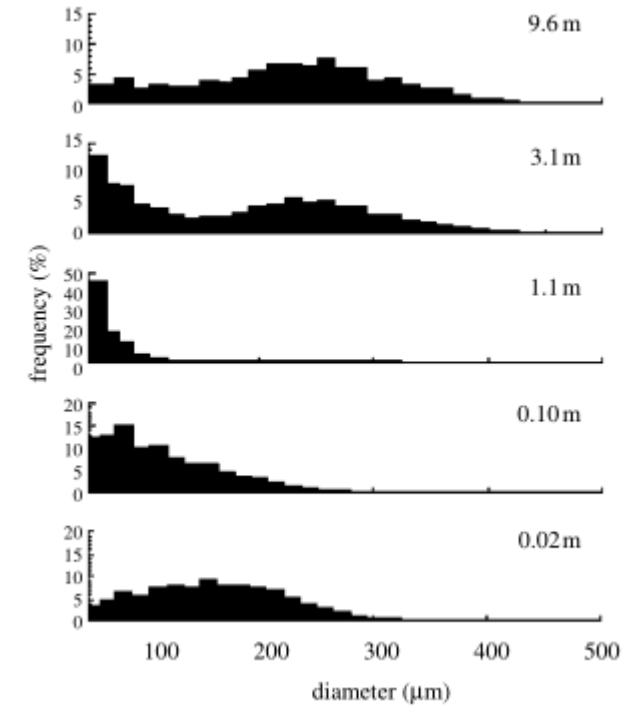
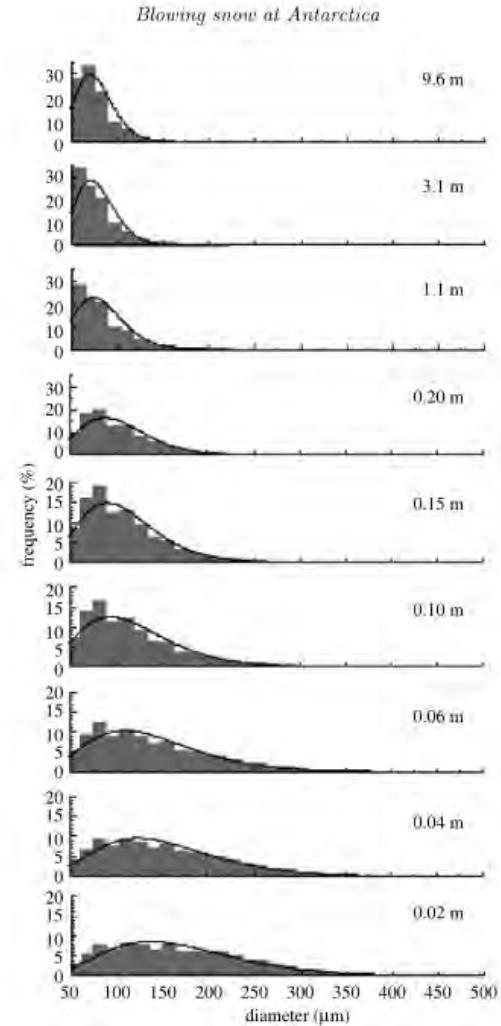


Chute de neige



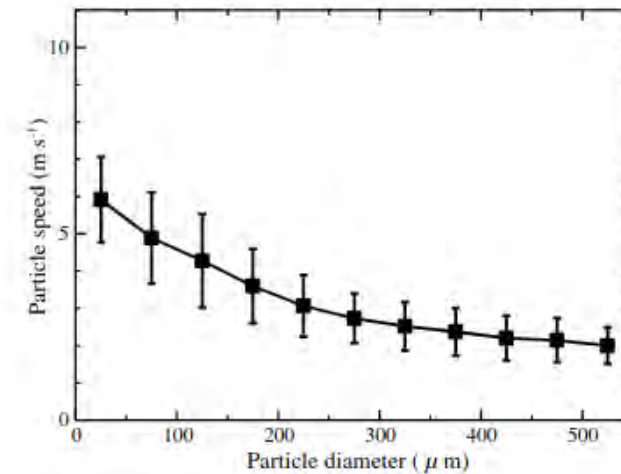
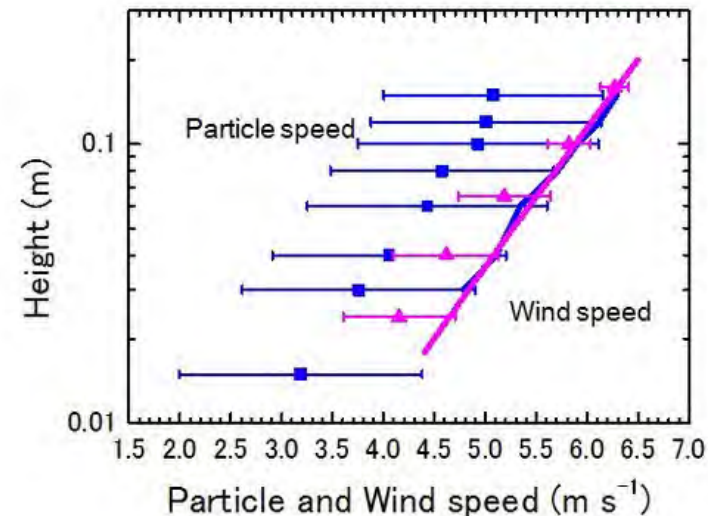
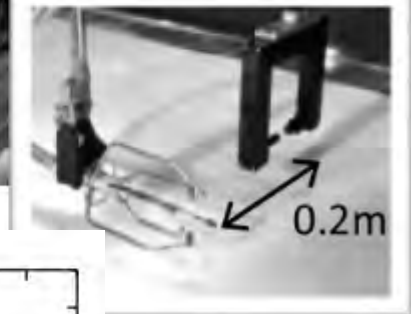
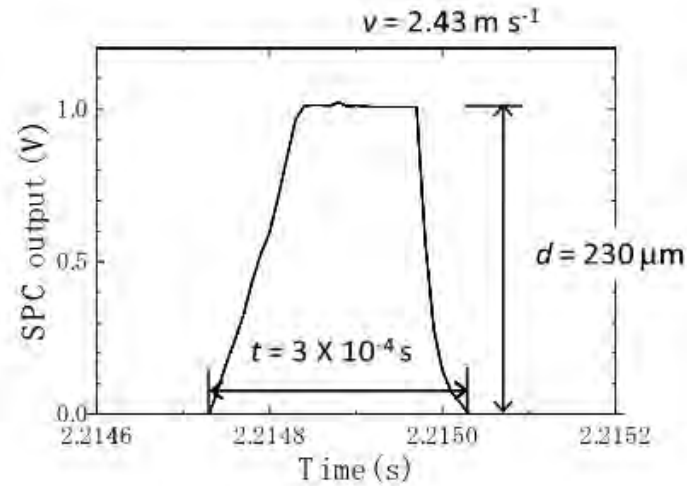
A meteorological and blowing snow data set (2000–2016) from a high-elevation alpine site (Col du Lac Blanc, France, 2720 m a.s.l.) G. Guyomarc'h, H. Bellot, V. Vionnet, F. Naaim-Bouvet, Y. Déliot, F. Fontaine, P. Pugliese, K. Nishimura, Y. Durand, M. Naaim. *Earth Syst. Sci. Data*, 11, 57–69, 2019

# Snow Particle Counter Lac Blanc.

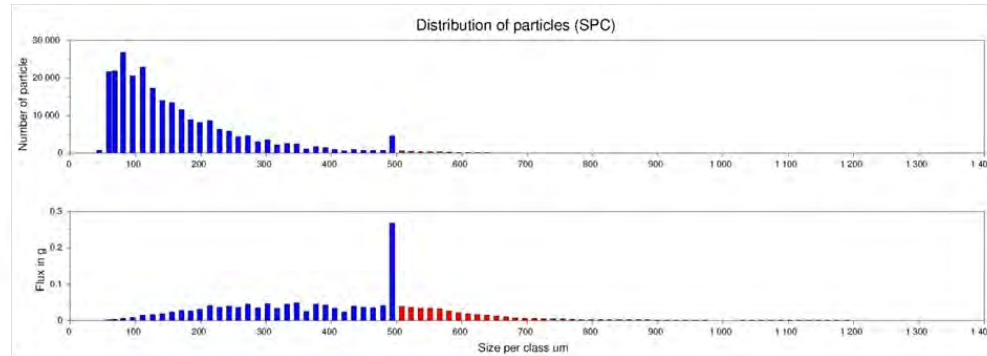
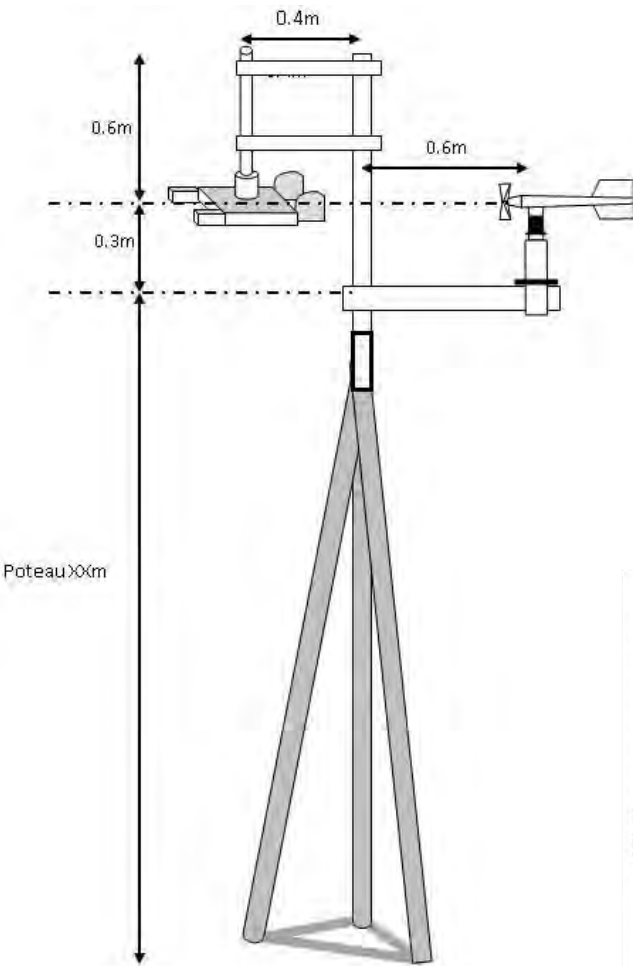


Kouichi Nishimura and Masaki Nemoto : Blowing snow at Mizuho station, Antarctica, Philos. Trans. A, 363, 1647–1662, <https://doi.org/10.1098/rsta.2005.1599>, 2005.

# Snow Particle Counter Lac Blanc /Shinjo



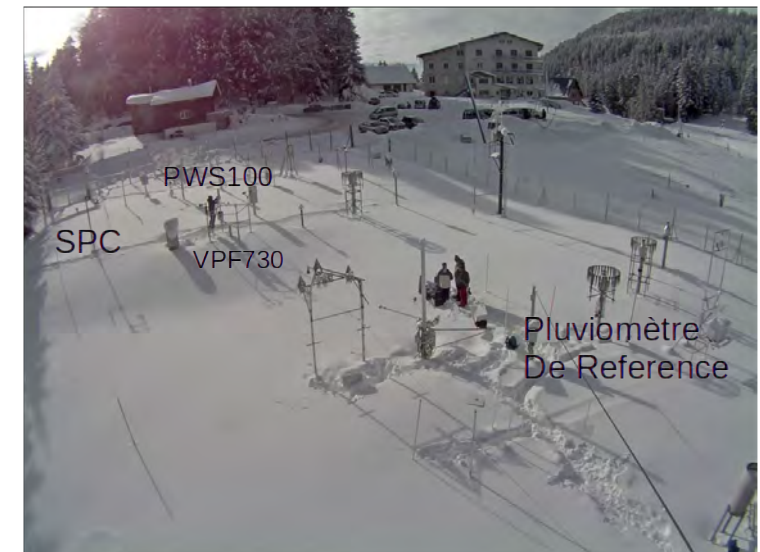
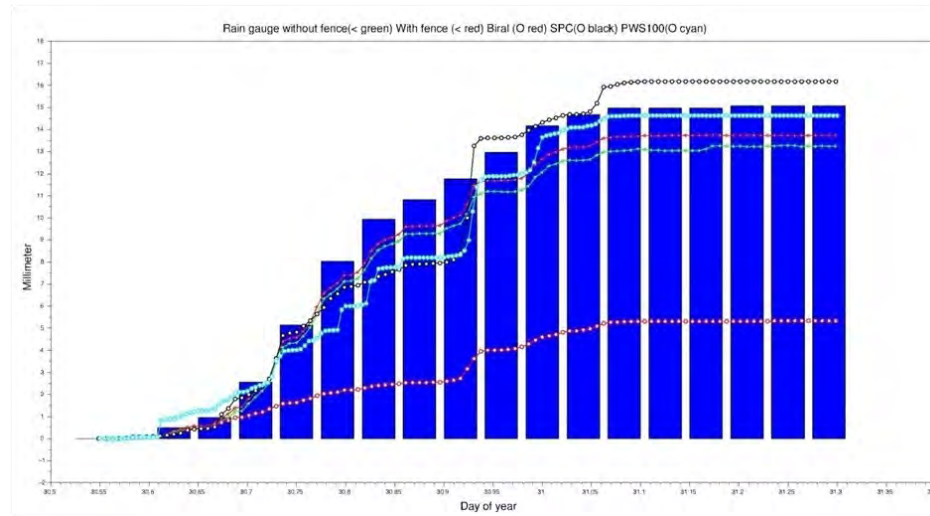
# Spice Col de porte



Flux → Concentration → Précipitation

Sugiura 2009  
Vitesse de vent

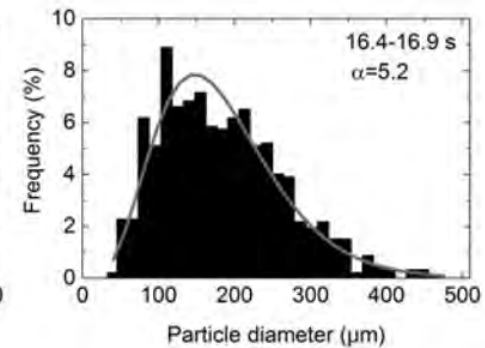
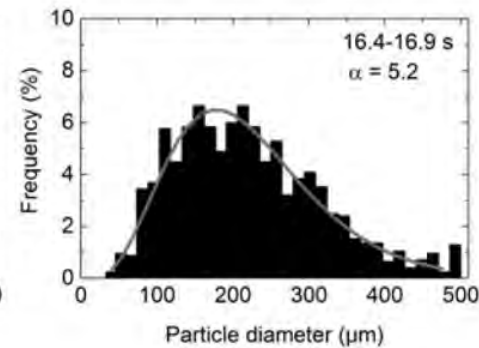
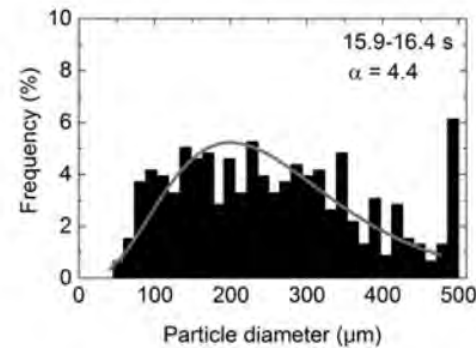
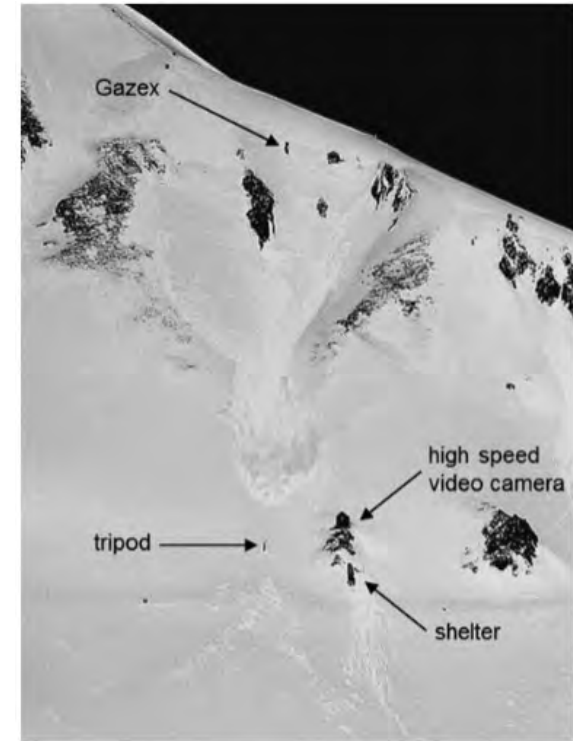
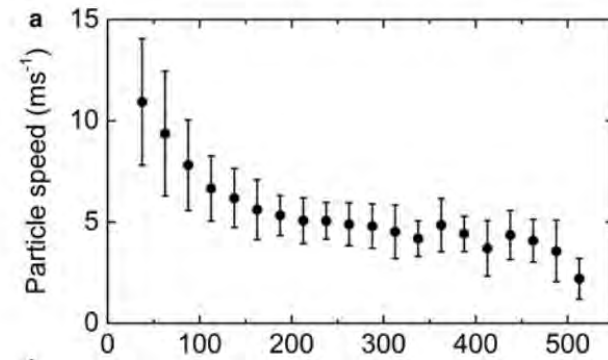
Dover 1993  
Vitesse de chute  
par classe de taille



Dover, S.E., 1993. Numerical modelling of blowing snow. (PhD thesis) Dept of Applied Maths, University of Leeds.

Sugiura, K., Ohata, T., Yang, D., Sato, T., and Sato, A.: Application of a snow particle counter to solid precipitation measurements under Arctic conditions, Cold. Reg. Sci. Technol., 58, 77–83, doi:10.1016/j.coldregions.2009.03.010, 2009

# Col du Lautaret



**Measurement of snow particle size and velocity in avalanche**

**powder clouds.** Journal of Glaciology (2017):YOICHI ITO, FLORENCE NAAIM-BOUVET, KOUICHI NISHIMURA, HERVÉ BELLOT, EMMANUEL THIBERT, XAVIER RAVANAT, FIRMIN FONTAINE