

## Erratum to: New cosmic ray observations at Syowa Station in the Antarctic

Chihiro Kato<sup>1,\*</sup>, Wataru Kihara<sup>1</sup>, Yukino Ko<sup>1</sup>, Akira Kadokura<sup>2,3,6</sup>, Ryuho Kataoka<sup>2,6</sup>, Paul Evenson<sup>4</sup>, Satoru Uchida<sup>1</sup>, So Kaimi<sup>1</sup>, Yoshiaki Nakamura<sup>5</sup>, Herbert Akihito Uchida<sup>2,6</sup>, Kiyoka Murase<sup>6</sup> and Kazuoki Munakata<sup>1</sup>

<sup>1</sup> Department of Physics, Faculty of Science, Shinshu University, Matsumoto, 390-8621 Nagano, Japan

<sup>2</sup> National Institute of Polar Research (NIPR), Tachikawa, 190-8518 Tokyo, Japan

<sup>3</sup> Polar Environment Data Science Center, Joint Support-Center for Data Science Research, Research Organization of Information and Systems, Tachikawa, 105-0001 Tokyo, Japan

<sup>4</sup> Bartol Research Institute, Department of Physics and Astronomy, University of Delaware, Newark, 19716 DE, USA

<sup>5</sup> Key Laboratory of Particle Astrophysics, Institute of High Energy Physics, Chinese Academy of Sciences, 100049 Beijing, PR China

<sup>6</sup> Department of Polar Science, The Graduate University for Advanced Studies, 240-0193 Sokendai, Hayama, Kanagawa, Japan

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### ABSTRACT

Due to confusion in the proof correction process, the author's proof corrections were not correctly taken into account. The corrections are listed below, highlighted by a boldface font.

**Keywords:** cosmic ray / muon detector / neutron monitor

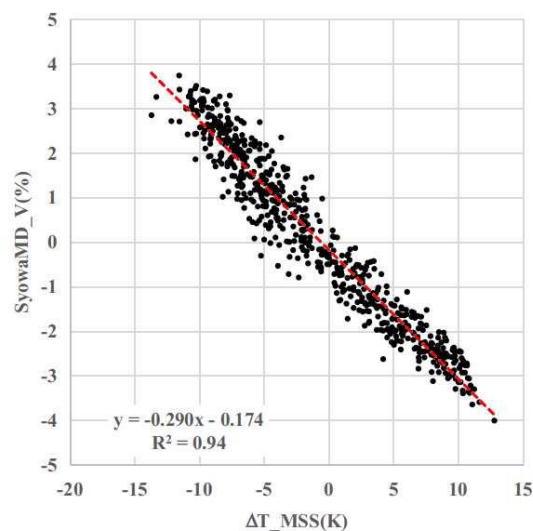
In the abstract, last sentence, as well as in footnote 5, page 4, and in the acknowledgements, the link "http://polaris.nipr.ac.jp/cosmicrays/" is missing a "~" sign and should read: <http://polaris.nipr.ac.jp/~cosmicrays/>

Figure 9, page 7, numerical values in the graphic read " $y = -0.2895x - 0.1737$ " and " $R^2 = 0.94$ " where it should have read " **$y = -0.890x - 0.174$** " and " **$R^2 = 0.94$** " as on the following figure.

Figure 9's caption, last sentence, the value of the correction coefficient  $a_{MSS}$  was wrongly written "0.289" instead of "0.290".

This correction should have also been added at page 7, penultimate paragraph, last sentence:

"The correction coefficient  $a_{MSS}$  is calculated to be  **$0.290 \pm 0.004$**  (%/K) with the correlation coefficient of 0.94."



**Fig. 9.** A scatter plot between  $\Delta T_{MSS}$  and the pressure corrected daily mean count rate in Syowa MD vertical channel (SYO\_MD\_V). The derived regression coefficient ( $a_{MSS}$ ) is  **$0.290 \pm 0.004$**  (%/K) and the correlation coefficient is 0.94.

Table 1, page 5 is missing a column:

~~equivalent to those available from  $3 \times 3$  arrays of  $50 \text{ cm} \times 50 \text{ cm}$  square detectors on the upper and lower layers.~~

Average  
Barometric  
Pressure [hPa]

Table 1. Characteristics of Syowa NM and MD.  $P_c$  of NM is calculated for vertical direction.

Directional channel	Cutoff rigidity $P_c$ (GV)	Median rigidity $P_m$ (GV)	Asymptotic directions @ $P_m$	Correction coefficient $\beta$ (%/hPa)	Average count rate $\times 10^4$ (counts/hr)	
Syowa NM Omni	0.4	16.3	30°S38° E	-0.76	31.8 (total)	982
Syowa MD						
V		53.6	56°S53° E	-0.16	26.9	
N		58.5	29°S35° E	-0.16	3.8	
S		58.5	70°S115° E	-0.16	3.8	
E		58.5	32°S81° E	-0.16	6.4	
W		58.5	60°S8° W	-0.16	6.4	
NE		63.6	16°S60° E	-0.15	1.0	
NW		63.6	34°S4° E	-0.16	1.0	
SE		63.6	42°S110° E	-0.16	1.0	
SW		63.6	80°S77° W	-0.16	1.0	

Page 8, penultimate paragraph, the sentence:  
“After the SSW, SYO\_MD\_V varies in correlation with DTMSS both above and below the 200 hPa altitude, showing a typical seasonal variation.”

Should read:  
“After the SSW, SYO\_MD\_V varies in **anti-correlation** with DTMSS both above and below the 200 hPa altitude, showing a typical seasonal variation.

Page 9, caption of figure 13, the sentence “DTMSS (calculated with Eq. (3)) is shown by blue solid circles on the right vertical axis using an inverted scale.” should read instead:  
“DTMSS (calculated with Eq. (3)) is shown by blue solid **triangles** on the right vertical axis using an inverted scale.

Page 11, in the acknowledgements, the Institute for Cosmic Ray Research is missing in the second sentence:  
This research project is supported by NIPR, ISEE (Institute for Space-Earth Environmental Research), **ICRR (Institute for Cosmic Ray Research)**, University of Delaware, and Shinshu University.

Page 11, reference Chen et al. (2019) had an incomplete page range :  
Chen C, Liu YD, Wang R, Zhao X, Hu H, Zhu B. 2019. Characteristics of a gradual filament eruption and subsequent CME propagation in relation to a strong geomagnetic storm. *Astrophys J* 884: **90-99**.  
<https://doi.org/10.3847/15384357/ab3f36>.

## Reference

Chen C, Liu YD, Wang R, Zhao X, Hu H, Zhu B. 2019. Characteristics of a gradual filament eruption and subsequent CME propagation in relation to a strong geomagnetic storm. *Astrophys J* **884**: 90-99.  
<https://doi.org/10.3847/15384357/ab3f36>.