

Comment (in addition to the one already posted):

Table 1. The vertical muon and proton fluxes are presumably integrated over energy. How does the relative flux change with increasing energy?

Fig. 3b at P849. The muon production rate per incident proton is shown for primary energies between 1 and 20 GeV. It would be interesting to see what happens to this rate also at much higher energies, since muons which penetrate and traverse a geophysical structure must have energies of at least several hundreds of GeV. In fact, according to Tanaka (2007), the muon production rate/proton seems to get larger at higher energies.

Suggested references to be added to the text

P831 L22 I suggest that there should be a reference for the composition of primary cosmic rays, perhaps Gaisser (1990). The same, or another specific, reference is needed for the discussion of the muon flux on Earth's surface (P832 L14-23).

P832 L24 Perhaps a reference is needed for the atmospheres of Mars and Titan.

P835 L18-24 The reference Tanaka et al. (2010) doesn't deal with Mt. Omuro, imaged with a moving detector and short exposures, but rather describes the tomography of the Asama volcano, realised with just two fixed detectors and long exposure times (one to three months). The only reference I could find to the Mt. Omuro test is H.K.M. Tanaka, Volume slicing with multi-directional muon radiography (talk presented at the "International Workshop on "Muon and Neutrino Radiography 2012"

P840 L21-23 Perhaps a reference is needed for the Mars Exploration Laboratory.

P851 Fig. 5 caption. The source of the different images should be referred to.

P853 Perhaps a reference for MOLA is needed.

Problems with references. The following references are not quoted in the text :

Agostinelli et al. (2003)

Anderson et al. (1990)

Barr et al. (2006)

Connerney et al. (2005)

Coustenis and Taylor (1999)

Formisano et al. (2004)

Gaisser (1990)

Lopez-Moreno et al. (2008)

Mars GRAM 2005

MEPAG (2010)

Mumma et al. (2009)

Nelson , Hirayama and Rogers (1985)

New Frontiers in the Solar System (2003)

Tanaka et al. (2008)

Williams et al. (2010)

Details

P831 L10 Tanaka et al. (2007) -> Tanaka (2007)

P833 L12 Additionally, pions 'and kaons' created by ...

P833 L19 The pion 'and kaon' flux is only ...

P835 L13 rovers -> rover's

P837 L21 Ground Penetrating Radar (GPR) -> GPR

P842 L3 ... Science, '167,' 832-839 ...

P842 L27 NIM A-> Nucl. Instrum. Meth. Phys. Res. A

P844 L29 cross one "Geophys. Res. Lett."

P844 L33 ... Merida, '' Mexico, 2007. 'Proceedings (R. Caballero et al. eds.) Vol 5 (HE part 2) 1241-1244, Mexico City, 2008.

P845 Given the increasing temporal order of the references, Lines 3-5 have to go before Lines 1-2.

P849 Fig. 3 caption. Tanka -> Tanaka

P850 Fig. 4 caption, line 3. Parallel scintillating plates -> plastic scintillator hodoscopes (?)