Corrigenda to "Synthetic differential geometry of jet bundles"

H. Nishimura

In the repetitive approach to the theory of jet bundles there are three methods of repetition, which yield three kinds of jet bundles, namely, *non-holonomic*, *semi-holonomic* and *holonomic* jet bundles respectively. In [1] we have happened to adopt the semi-holonomic version, but what was schizophrenic for sure, we have imposed the flatness of the Cartan connection on the semi-holonomic infinite jet bundles by fiat. As is well known, the flatness of the Cartan connection is idiosyncratic to holonomic infinite jet bundles. We should have adopted the holonomic version so as to elicit the flatness of the Cartan connection in place of assuming it.

The notion of holonomicity has been so elusive, so defiant and so indomitable that the classical approach to holonomic jet bundles could not claim to be truly repetitive, for it must resort to such a non-repetitive coordinate-dependent construction as Taylor expansion. In our forthcoming paper [2] we have succeeded in finding out a truly repetitive definition of holonomicity, in which a symmetric condition on microsquares (double tangents) is imposed. Now we are happy to tell you that all the results and their gimmicks of [1] persist through their holonomicization, except that the assumption [J $^{\infty}$II] is redundant.

References

[1] Nishimura, H., Synthetic differential geometry of jet bundles, Bull. Belg. Math. Soc. Simon Stevin, 8 (2001), 639-650.

[2] Nishimura, H., Holonomicity in synthetic differential geometry of jet bundles, to appeaar in Beiträge zur Algebra und Geometrie.