Errata

This document contains errata to P. Penninckx, *Fixed point theory and coincidence theory for infra-nilmanifolds*. PhD thesis, K.U.Leuven, 2009

Lemma 8.2.1 and Theorem 8.2.2 p. 125–127

Both the lemma and the theorem are incorrect. No other result in the thesis depends on these incorrect results.

Example 0.1. Let the holonomy group be generated by $A = \text{diag}(-1, -1, 1)$ and $B = \text{diag}(1, 1, -1)$ and let $D = \text{diag}(-1, 1, 2)$. Then clearly D commutes with any element of the holonomy group. Also we have that $\det(\mathbb{1} - MD) = 0$ for any element M of the holonomy group. However, $det(\mathbb{1} - AD^2) < 0$ and $\det(\mathbb{1} - ABD^2) > 0$.

This counter example to Lemma 8.2.1 can be translated to a counter example to Theorem 8.2.2.

Thanks to the anonymous referee of [1] for pointing us to the gap in the proof (the statement that W is a dense subset of V).

References

[1] Dekimpe, K., De Rock, B., and Penninckx, P. *The Anosov theorem for infra-nilmanifolds with a 2-perfect holonomy group.* J. Math., 2011, 15, 4, pp. 539–548.