Erratum

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Compositions of isometric immersions in higher codimension

manuscripta mathematica 105, 507 - 517 (2001).

The proof of Theorem 3 in the paper unfortunately only holds for dimension $p \leq 5$ instead of $p \leq 6$, and even for the case $p = 5$ there is a need for an additional argument that we discuss below. Thus Theorems 1 and 2 in the paper have only been proved for $p \leq 5$. However, the arguments in the paper give these results for $p = 6$ if we assume $\nu_6^f \leq n - q - 14$ instead of $\nu_6^f \leq n - q - 13$.

Proof of Theorem 3: The only case that needs an additional argument is when $p = 5$, $\tau = 3$, and $Y_1, Y_2 \in \mathcal{R}(\beta) \cap RE^*(\widehat{\beta})$ are such that

$$\widehat{\mathcal{U}}(X) = \operatorname{span}\{\widehat{\beta}(Y_i, Y_j) : 1 \leq i, j \leq 2\}$$

and $B_{Y_1}(\mathcal{N}) = \mathcal{U}(X)$ since in this case our estimate would fail. We show that this case can not occur. In fact, in this situation it is not difficult to see that we must have $\mathcal{U}(Y_1) \subset B_X(V^n)$ and $\dim \mathcal{U}(X) \cap \mathcal{U}(Y_1) = 1$. It is now easy to conclude that $\mathcal{U}(X) + \mathcal{U}(Y_1) + \mathcal{U}(Y_2)$ is a null space of dimension 6 and that, of course, is not possible unless $p \geq 6$. ∎

In fact, we show in [**1**] that Theorem 3 is false for $p = 6$ by exhibiting an counterexample in which the situation described in the above proof occurs.

References

[**1**] M. Dajczer and L. A. Florit, *A counterexample to a conjecture on flat bilinear forms.* Preprint.

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