

Erratum to "On the elimination of Morin singularities"

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This note corrects errors in Lemma 4.4 and the proofs of Propositions 4.3 and 5.3. Lemma 4.4 is not true. The correct statement of Lemma 4.4 should be as follows, "Let an element z of $\Sigma^{i+s}(n, p)$ belong to $\overline{\Sigma^{Ir}(n, p)}$. Then the conditions (i) and (ii) of the original Lemma 4.4 hold." The converse is false. Lemma 4.4 has been used to induce the wrong statement " $\overline{\Sigma^{Ir}(n, p)} \cap \Sigma^{i+s}(n, p)$ is equal to $p(s^{-1}(\overline{S^{i+r-2}}))$ " in Proof of Proposition 4.3 (p. 483, line 27). It must be replaced by " $\overline{\Sigma^{Ir}(n, p)} \cap \Sigma^{i+s}(n, p)$ is contained in $p(s^{-1}(\overline{S^{i+r-2}}))$ ". We do not need to alter any other part of the proof.

Proof of Proposition 5.3 is not valid except for the case; $n > p$, $s \neq (i-1)/2$ and $t \equiv 2 \pmod{4}$. It will be easy to see that the similar proof for the above case is valid for the case; $n > p$, $s \neq (i-1)/2$ and $t \not\equiv 2 \pmod{4}$ under the coefficient group G .

For a proof of Proposition 5.3-(ii), (iii) we need to consider the grassmann bundle $G_{i, n-i}(TN)$ and the flag bundle $F_{n, i, 1}(TN)$ over N with projection $q; F_{n, i, 1}(TN) \rightarrow G_{i, n-i}(TN)$. We define sections, $l_1: N_1 \rightarrow G_{i, n-i}(TN)$ and $l_2: N_{r, s} \rightarrow F_{n, i, 1}(TN)$. For x of N_1 or $N_{r, s}$ we define $l_1(x)$ as the kernel of the first derivative of $u(x)$ in $T_x N$ and $l_2(x)$ as the pair of subspaces $l_1(x)$ and the kernel of the second intrinsic derivative of $u(x)$ in $T_x N$. Then we apply the similar argument of the original proof of Proposition 5.3 to $q^{-1}(l_1(N_1))$ and $l_2(N_{r, s})$ in place of N_1 and $N_{r, s}$.

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