

CORRECTION TO "HIGHER OBSTRUCTIONS TO SECTIONING A SPECIAL TYPE OF FIBRE BUNDLE"

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I am indebted to Emery Thomas for pointing out that the formula (a) of Theorem 7.1 on p. 407 [1] was incorrect. It should be

$$W_{n-1}(\xi) + W_{n-3}(\xi) \cup D + \cdots + W_2(\xi) \cup D^{(n-3)/2}$$

$\subset H^{n-1}(X; Z_2)$ where D varies over the image of $q_* : H^2(X; Z) \rightarrow H^2(X; Z_2)$ and q_* is induced by the coefficients homomorphism.

My mistake came as follows. $V_{n,2}$ can be considered as a homogeneous space of $G_1 = \text{SO}(n) \times \text{SO}(2)$ in many different ways. For example, let $f_{l,1} : H_1 = \text{SO}(n-2) \times S^1 \rightarrow \text{SO}(n-2) \times \text{SO}(2) \times \text{SO}(2)$ be the embedding by the standard embedding on the first factor but by the type $(l, 1)$ on $S^1 \rightarrow \text{SO}(2) \times \text{SO}(2)$. Let $i : \text{SO}(n-2) \times \text{SO}(2) \times \text{SO}(2) \rightarrow \text{SO}(n) \times \text{SO}(2)$ be the standard embedding and $h_{l,1} = i \circ f_{l,1}$. Then $G_1/h_{l,1}(H_1)$ is always diffeomorphic to $V_{n,2}$, but they are different homogeneous spaces of G_1 for different l 's. The difference shows up, when we consider the transgression of the fundamental class of the universal $G_1/h_{l,1}(H_1)$ -bundle with G_1 as the structural group. The manifold $V_{n,2}$ on p. 408 should be $G_1/h_{-1,1}(H_1)$ which I mistakenly took as $G_1/f_{0,1}(H_1)$. A comprehensive generalization of this result was given recently by Thomas [2].

I believe that there is no effect on the other part of the paper.

REFERENCES

1. W.-C. Hsiang, *Higher obstructions to sectioning a special type of fibre bundle*, Trans. Amer. Math. Soc. **110** (1964), 393-412.
2. Emery Thomas, *Fields of tangent k -planes on manifolds*, Invent. Math. **3** (1967), 334-347.

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