J. DIFFERENTIAL GEOMETRY
86 (2010) 189-189

ERRATUM TO *RIGIDITY AND DEFORMATION SPACES OF STRICTLY CONVEX REAL PROJECTIVE STRUCTURES ON COMPACT MANIFOLDS*

Inkang Kim

Theorem I (and hence Theorem 2) of [**1**] is incorrect; in the proof of Theorem 2, if $\rho : PSL(n,\mathbb{R}) \to PSL(n,\mathbb{R})$ is a continuous isomorphism, the conclusion should be that ρ is an inner automorphism (i.e., conjugation) except in the case when $\rho(A) = (A^t)^{-1}$. This follows from the fact the outer automorphism group of $SL(n,\mathbb{R}), n \geq 3$ is $\mathbb{Z}_2$ (see [**2**], Theorem 5.4 in Chapter IX and Theorem 3.29 in Chapter X) and the nontrivial element is the one given above. But the above outer automorphism corresponds to the dual structure of a strictly convex real projective structure and it preserves the marked length spectrum. Hence the correct statement of Theorem I (and Theorem 2) should be:

Theorem I *Let M and N be compact, strictly convex real projective manifolds with Hilbert metrics. If they have the same marked length spectrum then they are projectively equivalent or dual to each other.*

Correspondingly, Corollary 0 (and hence Theorem 3) should be stated as:

Corollary 0 *Let $M = C_1/\Gamma_1$ and $N = C_2/\Gamma_2$ be compact, strictly convex real projective n-manifolds. Then there exists a cross-ratio preserving equivariant homeomorphism between ∂C_1 and ∂C_2 iff M and N are projectively equivalent or dual to each other.*

References

[1] I. Kim, *Rigidity and deformation spaces of strictly convex real projective structures on compact manifolds,* J. Differential Geom. **58** (2001), 189-218.

[2] S. Helgason, *Differential geometry, Lie groups, and symmetric spaces,* Academic Press, 1978.

School of Mathematics
KIAS, Hoegiro 87, Dongdaemun-gu,
Seoul 130-722, Korea
E-mail address: inkang@kias.re.kr

Received 2/22/2010.