ERRATUM TO “THE HEAT KERNEL WEIGHTED HODGE LAPLACIAN ON NONCOMPACT MANIFOLDS.”

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Theorem 3.4 in [B] requires an additional hypothesis. Add the first sentence: “Suppose that either $\ker \triangle^p_\mu \cong L^2_\mu H^p$ for all $p$ or $\ker \triangle^-_\mu \cong L^2_\mu^- H^p$ for all $p$ (cf. theorems 5.9 and 5.10).”

The last three sentences of the proof of theorem 3.4 are incorrect and should be replaced by: “Let $[\omega'] \in L^2_\mu H$ be nonzero. Let $\omega \in [\omega']$ be the harmonic ($\triangle_\mu \omega = 0$) representative, so $\omega \neq 0$ and

$$d (\star_\mu \omega) = \pm \star d \star e^{2h} \omega = \pm e^{2h} (e^{-2h} \delta e^{2h}) \omega = \pm e^{2h} \delta_\mu \omega = 0$$

(recall $\delta = \pm d* \star$ and $\star \star = \pm 1$). Since $\int_M \omega \wedge \star_\mu \omega = \|\omega\|^2_\mu > 0$, the pairing is nondegenerate. □

Finally, the sentence following theorem 3.4 should read: “We have shown exactly that $[\star_\mu \omega]$ is the Poincaré dual of $[\omega']$ if $\omega \in [\omega']$ is the harmonic representative.”

Thanks to Denis Bell for finding this error.

REFERENCES


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