

**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  $\ker \Delta_\mu^p \cong L_\mu^2 H^p$  for all  $p$  or  $\ker \Delta_{\mu^-}^p \cong L_{\mu^-}^2 H^p$  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  $[\omega'] \in L_\mu^2 H$  be nonzero. Let  $\omega \in [\omega']$  be the harmonic ( $\Delta_\mu \omega = 0$ ) representative, so  $\omega \neq 0$  and

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

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

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

- [B] Edward L. Bueler, *The heat kernel weighted Hodge Laplacian on noncompact manifolds*, Trans. Amer. Math. Soc. **351 no. 2** (1999), 683–713.

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