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ERRATUM TO "THE COMPLEXIFICATION AND DIFFERENTIAL STRUCTURE OF A LOCALLY COMPACT GROUP"

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The proof to Proposition 9 contains an error, and in fact the statement of the proposition is false. Proposition 9 was employed in the sequel only to prove the inequality $\|\theta^{\#}\|_B \geq |||\theta|||$ of Proposition 10. We presently offer an alternate derivation of this inequality.

Let θ and Ω be as in Proposition 10. For each $\pi \in \Omega$ let β_π be the partial unitary element in πW occurring in the polar decomposition: $\theta_\pi = \beta_\pi \sqrt{\theta_\pi^\sim \theta_\pi}$. Let $\rho \equiv \sum_{\pi \in \Omega} \beta_\pi^\sim$. Then, by (15), (50), (48), and the fact that $\|\rho\| = 1$,

$$\begin{aligned}\|\theta^{\#}\|_B = \|F_{\theta^{\#}}\| &= \left\|\sum_{\pi\in\Omega} E_\pi(\theta_\pi)\right\| \geq \rho\left(\sum_{\pi\in\Omega} E_\pi(\theta_\pi)\right)\\ &= \sum_{\pi\in\Omega} \operatorname{tr}_\pi \beta_\pi^\sim \theta_\pi = \sum_{\pi\in\Omega} \operatorname{tr}_\pi \sqrt{\theta_\pi^\sim \theta_\pi} = \sum_{\pi\in\Omega} \|\theta_\pi\|_{\pi,1} = |||\theta|||.\end{aligned}$$

REFERENCES

1. Kelly McKennon, *The complexification and differential structure of a locally compact group*, Trans. Amer. Math. Soc. **267** (1981), 237–258.

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