



Statistics Under Stochastic Metrics

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Errata: Statistics under Stochastic Metrics

Cilie W. Feldager

March 2, 2023

1 Corrections

The sum should be over \mathcal{R}_p rather than \mathcal{R} in equations 4.13, 4.18, 4.26-4.30.

The volume element in the first line of the second to last paragraph on page 56 should have been $\sqrt{\det g_{ij}}$ instead of $\sqrt{\det g_{ij}}$.

The second derivative in equation 5.20 is missing a superscript, $\ddot{\gamma}^i$.

Equations in section 5.3.1 and the rest of chapter 5 (concerning length and energy of curves) should have used norms under the metric instead of the Euclidean norm. I.e. the length should have been

$$\text{Length}(\gamma) = \int_0^1 \|\dot{\gamma}(t)\|_{g_x}.$$

The integrals in equations 5.23-5.27 should have been integrated from zero to one and the norm should have been under the metric, not a Euclidean norm.

The last term in equation 7.27 should not contain a factor of 1/2 as this already appears outside the parentheses.

The first term in equation 7.41 should not contain a sum.

The Brownian motion described immediately after equation 7.43 should have been dB_t .

2 Clarifications

The results in equation 6.33 is novel and has not been done before to my knowledge.

I do not think that the project described in chapter 7 failed, merely that I failed to complete the last step out of a long list of steps. The project remains an interesting contribution.