Errata: Bayesian Neural Networks: An Introduction and Survey

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Errata Corrected on arXiv version of paper.

Eqn 3.30 on page 63 for leap frog integration, the step should be $\epsilon/2$. I am not happy with the notation there. Instead use,

$$
\begin{aligned}
v_i(t+\frac{\epsilon}{2}) &= v_i(t) + \frac{\epsilon}{2}\frac{dv_i(t)}{dt}, \\
w_i(t+\epsilon) &= w_i(t) + \epsilon\frac{dw_i(t+\epsilon/2)}{dt}, \\
v_i(t+\epsilon) &= v_i(t+\frac{\epsilon}{2}) + \frac{\epsilon}{2}\frac{dv_i(t+\epsilon)}{dt}.
\end{aligned}
$$

Eqn. 3.48 on page 68, is missing the logarithms, it should read,

$$
\sigma_{t+1} = \sigma_t + \sigma_t^2\Big[\big(\frac{\partial \log p(\mathcal{D}_{t+1})}{\partial \mu_t}\big)^2 - 2\frac{\partial \log p(\mathcal{D}_{t+1})}{\partial \sigma}\Big].
$$

Eqn. 3.53 on page 69, the e should be a $\mathbb{E}$

For the α divergence on page 75, the limits to relate to forward/reverse KL divergence and Hellinger distance were not correct. It should be, $KL(q|p) : \alpha \to 0, KL(p|q) : \alpha \to 1$, Hellinger: $\alpha \to 0.5$.

Eq. 3.58 missing factor of $1/2$

Eq. 3.63 page 79 missing exp in numerator for softmax.