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CORRECTION

Correction: Learning with density matrices and random features

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Correction: Quantum Machine Intelligence (2022) 4:23
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The original online version of this article was revised: The authors noticed an error is in equation (7), proposition 2, page 3:

Incorrect Eq. -->
$$\Pr\left[\sup_{x\in\mathcal{M}}\left|\widehat{f}_{\rho_{\text{train}}}(x)-\widehat{f}_{\gamma}(x)\right|\geq\epsilon\right]\leq 2^8\left(\frac{\sqrt{2d\gamma}\,\text{diam}(\mathcal{M})}{3M_\gamma N\epsilon}\right)^2\exp\left(-\frac{D(3M_\gamma N\epsilon)^2}{4(d+2)}\right)$$

Correct Eq. -->
$$\Pr\left[\sup_{x\in\mathcal{M}}\left|\widehat{f}_{\rho_{\text{train}}}(x)-\widehat{f}_{\gamma}(x)\right|\geq\epsilon\right]\leq 2^8\left(\frac{\sqrt{2d\gamma}\,\text{diam}(\mathcal{M})}{3M_\gamma \epsilon}\right)^2\exp\left(-\frac{D(3M_\gamma \epsilon)^2}{4(d+2)}\right)$$

The proof of the proposition in the Appendix on pages 15 and 16 has also been corrected:

Incorrect Eq. -->
$$\Pr\left[\sup_{x\in\mathcal{M}}\left|\widehat{f}_{\rho_{\text{train}}}(x)-\widehat{f}_{\gamma}(x)\right|\geq\epsilon\right]\leq 2^8\left(\frac{\sqrt{2d\gamma}\,\text{diam}(\mathcal{M})}{3M_\gamma N\epsilon}\right)^2\exp\left(-\frac{D(3M_\gamma N\epsilon)^2}{4(d+2)}\right)$$

Correct Eq. --->
$$\Pr\left[\sup_{x\in\mathcal{M}}\left|\widehat{f}_{\rho_{\text{train}}}(x)-\widehat{f}_{\gamma}(x)\right|\geq\epsilon\right]\leq 2^8\left(\frac{\sqrt{2d\gamma}\,\text{diam}(\mathcal{M})}{3M_\gamma \epsilon}\right)^2\exp\left(-\frac{D(3M_\gamma \epsilon)^2}{4(d+2)}\right)$$

Incorrect Eq. -->$\Pr\left[\sup_{x\in\mathcal{M}}\left|\widehat{f}_{\rho}(x)-\widehat{f}_{\gamma}(x)\right|\geq 3M_\gamma N\epsilon\right]\leq B$

Correct Eq. --->$\Pr\left[\sup_{x\in\mathcal{M}}\left|\widehat{f}_{\rho}(x)-\widehat{f}_{\gamma}(x)\right|\geq 3M_\gamma \epsilon\right]\leq B$

Incorrect Eq. -->
$$\Pr\left[\sup_{x\in\mathcal{M}}\left|\widehat{f}_{\rho_{\text{train}}}(x)-\widehat{f}_{\gamma}(x)\right|\geq\epsilon\right]\leq 2^8\left(\frac{\sqrt{2d\gamma}\,\text{diam}(\mathcal{M})}{3M_\gamma N\epsilon}\right)^2\exp\left(-\frac{D(3M_\gamma N\epsilon)^2}{4(d+2)}\right)$$

Correct Eq. --->
$$\Pr\left[\sup_{x\in\mathcal{M}}\left|\widehat{f}_{\rho_{\text{train}}}(x)-\widehat{f}_{\gamma}(x)\right|\geq\epsilon\right]\leq 2^8\left(\frac{\sqrt{2d\gamma}\,\text{diam}(\mathcal{M})}{3M_\gamma \epsilon}\right)^2\exp\left(-\frac{D(3M_\gamma \epsilon)^2}{4(d+2)}\right)$$

The original article has been corrected.

The original article can be found online at https://doi.org/10.1007/s42484-022-00079-9.

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