Erratum: Security of coherent-state quantum cryptography in the presence of Gaussian noise
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We have to report two mistakes in our article:
(1) There is a sign mistake in Eq. (16). The correct formula should read

\[
p(|\beta_0| |\alpha_1|) = \int_{-\infty}^{\infty} d\beta p(b|a) = \sqrt{\frac{2}{\pi(2 + \delta)}} \exp\left(-\frac{2(|\beta_0| + \sqrt{\eta}|\alpha_1|)^2}{2 + \delta}\right) + \exp\left(-\frac{2(|\beta_0| - \sqrt{\eta}|\alpha_1|)^2}{2 + \delta}\right).
\]  

(16)

(2) The expression for the overlaps in Eqs. (30) and (31) is incorrect. The correct formulas read

\[
A = \exp\left(-2\alpha_1^2\left[1 - \frac{2\eta}{2 + \delta}\right]\right),
\]

(30)

\[
B = \exp\left(-2\beta_1^2\frac{\delta}{2 + \delta}\right).
\]

(31)

The same error occurs in Eq. (35) as well

\[
\langle e_{\theta}^{a,b} | e_{\theta'}^{a,b}\rangle = A = \exp\left(-2\alpha_1^2\left[1 - \frac{2\eta}{2 + \delta}\right]\right),
\]

\[
\langle e_{\phi}^{a,b} | e_{\phi'}^{a,b}\rangle = B = \exp\left(-2\beta_1^2\frac{\delta}{2 + \delta}\right).
\]

(35)

However, all results and conclusion remain unaffected by these changes, as the incorrect formulas were never implemented in the numerical code.