**Erratum: Optimal Frames for Polarization State Reconstruction
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In our Letter we state incorrectly that the differentials of the condition number κ of the instrument matrix $\mathbb{A}$ and the determinant of the matrix $\mathbb{B} = \mathbb{A}^T \mathbb{A}$ were related by $2d \ln \kappa = -d \ln |\mathbb{B}|$. We used this result to conclude that minimization of κ is equivalent to maximization of $|\mathbb{B}|$. Although the given formula is incorrect, the equivalence nevertheless holds, as can be understood by considering the landscapes of κ and $|\mathbb{B}|$ as a function of the optimization parameters. Specifically, recalling that $\mathbb{B} = \mathbb{A}^T \mathbb{A}$ and is hence positive semidefinite, it follows that $\ln |\mathbb{B}|$ is a concave function [1]. In turn it follows that $d \ln |\mathbb{B}| / dB_{ij}$ is monotonically decreasing for all i and j . Through Eq. (2) of our Letter it therefore follows that κ is also a monotonically decreasing function with respect to the parameters $\mathbf{a}_j = (A_{j1}, A_{j2}, A_{j3})^T$. Minimization of the condition number of the instrument matrix is hence equivalent to maximization of the determinant of $\mathbb{B}$. An alternative proof that the set of matrices which minimize κ are the same as those which maximize $|\mathbb{B}|$ can be found in Ref. [2]. The remaining results and conclusions drawn in our Letter remain unaffected.

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- [1] S. Boyd and L. Vandenberghe, *Convex Optimization* (Cambridge University Press, Cambridge, England, 2010), ISBN 9780521833783.
- [2] M. R. Foreman and F. Goudail, On the equivalence of optimization metrics in Stokes polarimetry, *Opt. Eng.* **58**, 082410 (2019).