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Publisher Correction: Optical reciprocity induced wavefront shaping for axial and lateral shifting of focus through a scattering medium

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Abhijit Sanjeev, Vismay Trivedi & Zeev Zalevsky

Correction to: *Scientific Reports* https://doi.org/10.1038/s41598-022-10378-7, published online 16 April 2022

The original version of this Article contained an error in Eq. 1, where the equation contained wrong placements of bracket, a misplaced matrix, and devoid of the power M.

$$S = [F_{ij}]^* \begin{bmatrix} e^{-i\pi\lambda z\mu_j^2} & \cdots & 0 & 0 \\ \vdots & \ddots & 0 & \vdots \\ 0 & \cdots & e^{-i\pi\lambda z\mu_j^2} & 0 \\ 0 & 0 & 0 & e^{-i\pi\lambda z\mu_j^2} \end{bmatrix} \begin{bmatrix} [F_{ij}] \begin{bmatrix} e^{-i\pi\lambda dz\mu_j^2} & \cdots & 0 & 0 \\ \vdots & \ddots & 0 & \vdots \\ 0 & \cdots & e^{-i\pi\lambda dz\mu_j^2} & 0 \\ 0 & 0 & 0 & e^{-i\pi\lambda dz\mu_j^2} \end{bmatrix} \\ \text{Free Space Propagation Matrix} \end{bmatrix}$$

$$[F_{ij}]^* [F_{ij}] \begin{bmatrix} P_{11} & \cdots & 0 & 0 \\ \vdots & \ddots & 0 & \vdots \\ 0 & \cdots & P_{N-1N-1} & 0 \\ 0 & 0 & 0 & P_{NN} \end{bmatrix} \Bigg] \quad (1)$$

Phase Scattering Matrix

now reads:

$$S = \Bigg[[F_{ij}]^* \begin{bmatrix} e^{-i\pi\lambda dz{\mu_j}^2} & \cdots & 0 & 0 \\ \vdots & \ddots & 0 & \vdots \\ 0 & \cdots & e^{-i\pi\lambda dz{\mu_j}^2} & 0 \\ 0 & 0 & 0 & e^{-i\pi\lambda dz{\mu_j}^2} \end{bmatrix} [F_{ij}] \begin{bmatrix} P_{11} & \cdots & 0 & 0 \\ \vdots & \ddots & 0 & \vdots \\ 0 & \cdots & P_{N-1N-1} & 0 \\ 0 & 0 & 0 & P_{NN} \end{bmatrix} \Bigg]^M \quad (1)$$

(Free Space Propagation Matrix) *(Phase Scattering Matrix)*

The original Article has been corrected.