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Corrigendum: Structured light: ideas and concepts

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singular optics, optical vortex, polarization singularity, dynamical characteristics, paraxial beams, evanescent fields, optical manipulation, optical data processing

A Corrigendum on
Structured light: ideas and concepts

by Angelsky OV, Bekshaev AY, Hanson SG, Zenkova CY, Mokhun II and Jun Z (2020). Front. Phys. 8: 114. doi: 10.3389/fphy.2020.00114

In the published article, an **Author name** was incorrectly written as "Zheng Jun." The correct spelling is "Jun Zheng."

In the published article, there were errors.

1) In the first paragraph of Section "**PRINCIPLES OF THE STRUCTURED LIGHT DESCRIPTION: PARAXIAL MODEL**," the sign in the exponent $\exp(i\,\omega\,t)$ is incorrect, and the relation between the exponent and the time-invariant vectors $\mathbf{E}(\mathbf{R})$, $\mathbf{H}(\mathbf{R})$ is not clear;
2) In Equation 32, the first equality is incorrect;
3) In Section "**AUTHOR CONTRIBUTIONS**," the initials of the author Jun Zheng are erroneous.

1) A correction has been made to "**PRINCIPLES OF THE STRUCTURED LIGHT DESCRIPTION: PARAXIAL MODEL**," Paragraph 1. This sentence previously stated:

"In general, this set of features must include the spectral characteristics, but in this review, we restrict ourselves to the case of monochromatic fields whose temporal dependence can be expressed by the complex exponential $\exp(i\,\omega\,t)$ where ω is the light frequency."

The corrected sentence appears below:

"In general, this set of features must include the spectral characteristics, but in this review, we restrict ourselves to the case of monochromatic fields whose temporal dependence can be expressed by the complex exponential $\exp(-i\,\omega\,t)$ where ω is the light frequency, and instantaneous electric and magnetic fields are determined as $\mathrm{Re}[\mathbf{E}(\mathbf{R})\exp(-i\omega t)]$, $\mathrm{Re}[\mathbf{H}(\mathbf{R})\exp(-i\omega t)]$."

2) A correction has been made to "**DYNAMICAL CHARACTERISTICS OF STRUCTURED OPTICAL FIELDS**," "*Dynamical Characteristics of the Paraxial Fields*," Equation 32. This equation previously stated:

$$s_3 = -i|\mathbf{u}^\star \times \mathbf{u}| = -i\left(u_x^* u_y - u_y^* u_x\right) = |u_+|^2 - |u_-|^2 \tag{32}$$

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The corrected equation appears below:

$$s_3 = -i\mathbf{e}_z\,(\mathbf{u}^* \times \mathbf{u}) = -i\left(u_x^* u_y - u_y^* u_x\right) = |u_+|^2 - |u_-|^2 \qquad (32)$$

3) Two corrections have been made to **Author Contributions**. The sentences previously stated:

"AB and ZJ organized the database. ZJ and AB contributed to section Surface Plasmon–Polaritons."

The corrected sentences appear below:

"AB and JZ organized the database. JZ and AB contributed to section Surface Plasmon–Polaritons".

The authors apologize for these errors and state that they do not change the scientific conclusions of the article in any way. The original article has been updated.

Publisher's note