

# Erratum: Photorefractive writing and probing of anisotropic linear and nonlinear lattices (2014 *J. Opt.* **17** 025101)

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An error was made in the typesetting of the sentence below equation (8) in the published version of this article. This sentence should read:

‘In the right hand side of equation (8), the first term proportional to  $|E_0|$  is the drift term, and the second, proportional to  $k_B T/e = D/\mu$  (where  $D$  is the diffusion coefficient and  $\mu$  the electron mobility), the diffusive term.’

In addition, a global change was made incorrectly throughout the paper. The word ‘focused’ has been incorrectly changed to the word ‘defocusing’. The occurrences of this error are listed below with the corrected sentences. Line numbers indicate the start of the sentence.

Abstract, line 5 should read: For focused linear waves with broad transverse spectrum, we remark that both the intensity distributions in real space (‘discrete diffraction’) and Fourier space (‘Brillouin zone spectroscopy’) reflect the Bragg planes and band structure.

Page 3, right-hand column, line 5 from bottom should read: On the other hand, the extraordinary polarized beam is used as a probe beam, which eventually is shapen anisotropically using a cylindrical lens, or focused with regular lenses.

Page 5, right-hand column, line 3 should read: The probe beam is a plane wave (first two columns) or a beam with broad transverse spectrum, narrowly focused at the crystal input face (to a waist  $w_0 = 2.0 \mu\text{m}$ ), that expands in the crystal (last two columns).

Page 6, figure 4 caption should read as: Figure 4. Intensity of a linear probe beam (and writing beam, in second column) at crystal output in real and Fourier space, for a 1D (upper row), square (middle row) and a diamond lattice

(lower row). The probe beam is a plane wave (first two columns) or a narrowly focused wave at the crystal input, which expands in the lattice (last two columns). (a), (e) and (i) real space output for a plane wave input probe with lattice period  $d = 27 \mu\text{m}$  (1D lattice) and  $d = 38.5 \mu\text{m}$  (2D lattices) (b), (f) and (j) Fourier images of lattice writing beams (four outside points) and the probe which is a point at  $\mathbf{k} = 0$ . (c), (g) and (k) real space output for a focused probe (discrete diffraction patterns) with  $d = 7 \mu\text{m}$  (1D lattice) and  $d = 10 \mu\text{m}$  (2D lattices). White lines show the ballistic positions  $\pm yL$  of vertical Bragg components  $\pm kL$ . (d), (h) and (l) Fourier images of the focused probe (Brillouin zone spectroscopy), with  $d = 13.6 \mu\text{m}$  (1D lattice) and  $d = 19.2 \mu\text{m}$  (2D lattices), with vertical Bragg components  $\pm kL$  shown as white lines.

Page 6, left-hand column, line 13 should read: With a focused, expanding linear probe, in real space (figures 4(c), (g) and (k)), we observe the patterns commonly called ‘discrete diffraction’ [24], displaying two outer expanding lobes of high intensity, particularly well seen in the 1D case (figure 4(c)).

Page 7, right-hand column, line 18 should read: The Fourier images with focused probe (figures 4(d), (h) and (l)) are generally referred to as ‘BZ spectroscopy’ [23, 26].

Page 9, left-hand column, line 4 from bottom should read: In figure 8, we show the output intensity at times  $tW = 23, 39, 54$  s, when a diamond 2D lattice and a focused probe beam are simultaneously applied, with a ratio of peak input probe intensity to average lattice intensity  $I_p/I_L \sim 0.5$ .

Page 9, right-hand column, line 29 should read: With focused, expanding wavepackets with a broad transverse spectrum, we analyzed discrete diffraction patterns (at finite

propagation time, in real space), noting an analogy with the Fourier space patterns of BZ spectroscopy, since Bragg planes and band structure appear in both types of images.

Page 9, right-hand column, line 10 from bottom should read: For a focused input wave, we recorded the temporal formation of discrete solitons.