

## Projection on higher Landau levels and non-commutative geometry

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## Corrigendum

### Projection on higher Landau levels and non-commutative geometry

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Equation (49) should read

$$f \star_1 g = \left(1 + \frac{1}{4\omega_c} \Delta\right)^{-1} \left( \left(f + \frac{1}{4\omega_c} \Delta f\right) \star_0 \left(g + \frac{1}{4\omega_c} \Delta g\right) \right) \quad (49)$$

so that equation (50) then reads

$$f \star_1 g = \left(1 + \frac{1}{4\omega_c} \Delta\right)^{-1} \left( e^{-\frac{1}{4\omega_c} (\partial_x - i\partial_y)(\partial'_x + i\partial'_y)} \left(1 + \frac{1}{4\omega_c} \Delta\right) \left(1 + \frac{1}{4\omega_c} \Delta'\right) \right. \\ \left. \times f(x, y)g(x', y')|_{x=x', y=y'} \right). \quad (50)$$

Consequently, the two sentences that follow equation (52), ‘Note that since  $g(z)$  is analytic  $V \star_1 g = (V + \frac{1}{4\omega_c} \Delta V)g$ . Therefore (52) is nothing but  $((V + \frac{1}{4\omega_c} \Delta V)g)^{(1)}(X, Y) = (E - 3\omega_c)g(X + iY)$ .’ should be replaced by ‘Note that since  $g(z)$  is analytic  $V \star_1 g = (1 + \frac{1}{4\omega_c} \Delta)^{-1}((V + \frac{1}{4\omega_c} \Delta V)g)$ .’.

Equation (58) should read

$$f \star_n g = (D_{x,y}^{(n)})^{-1} \left( e^{-\frac{1}{4\omega_c} (\partial_x - i\partial_y)(\partial'_x + i\partial'_y)} D_{x,y}^{(n)} D_{x',y'}^{(n)} f(x, y)g(x', y')|_{x=x', y=y'} \right). \quad (58)$$

The sentence that follows equation (60), ‘The analyticity then implies that  $p_f \star_n p_g = p_f p_g$  so that ...’ should be replaced by ‘The analyticity then implies that  $\bar{p}_f \star_n p_g = (D_{x,y}^{(n)})^{-1}(\bar{p}_f p_g)$  so that ...’.

Accordingly, in footnote 4, equation (64) should read

$$D_{x,y}^{(n)}(\bar{f} \star_n f)(x, y) = \sum_{j=0}^{\infty} \frac{(-1)^j}{j!} (4\omega_c)^{-j} |(\partial_x + i\partial_y)^j D_{x,y}^{(n)} f(x, y)|^2. \quad (64)$$