Figures of Solitary wave solution, breather wave solution and rogue wave solution for a KP-equation
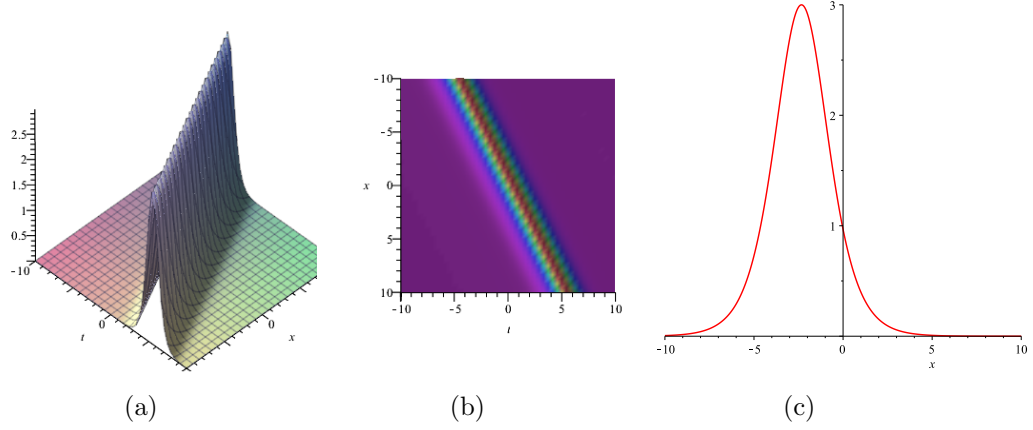

(a)   (b)   (c)

Figure 1: One-soliton solution (11) of Eq.(1) with parameters $k_1 = 1, \mu_1 = 1, \alpha = 1, b = 1, p = 1, y = 1$. (a) Perspective view of (11). (b) Overhead view of (11). (c) The mode of wave propagation along the x axis.
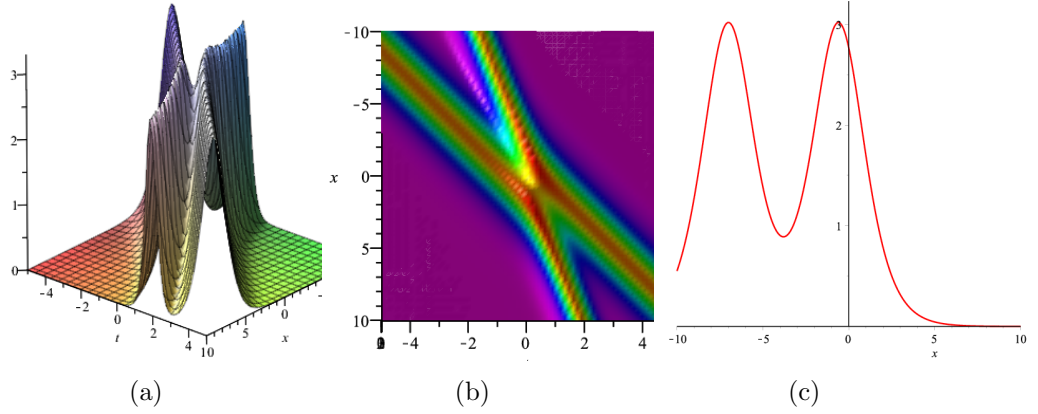

(a)   (b)   (c)

Figure 2: Two-soliton solution (14) of Eq.(1) with parameters $k_1 = 1, \mu_1 = 1, \alpha = 1, b = 1, p = 1, k_2 = -2, \mu_1 = 2, y = 1$. (a) Perspective view of (14). (b) Overhead view of (14). (c) The mode of wave propagation along the x axis.
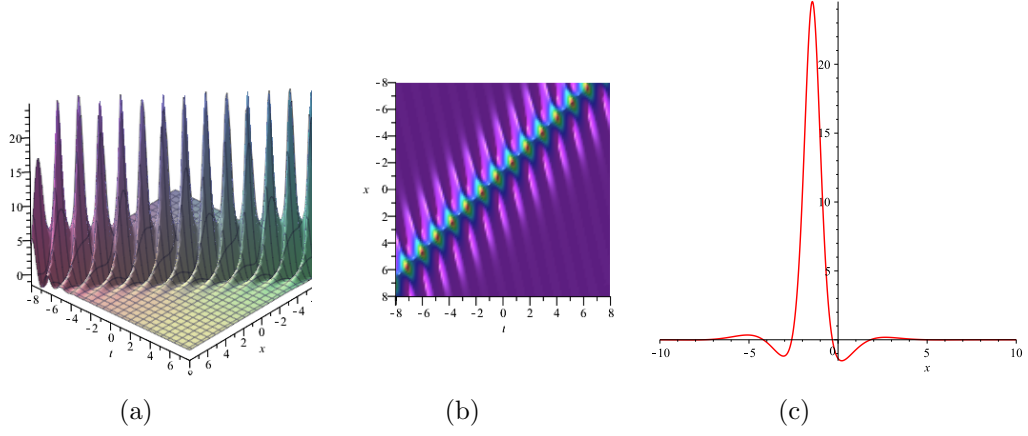
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(a)   (b)   (c)

Figure 3: Breather wave solution (18) of Eq.(1) with parameters $p_1 = 1, p_2 = 1, b_1 = 1, b_2 = 2, p = 1, \alpha = -\frac{108}{7}, b = 1, \delta_1 = 1, u_0 = \frac{61}{7}, y = 1$. (a) Perspective view of (18). (b) Overhead view of (18). (c) The mode of wave propagation along the x axis.
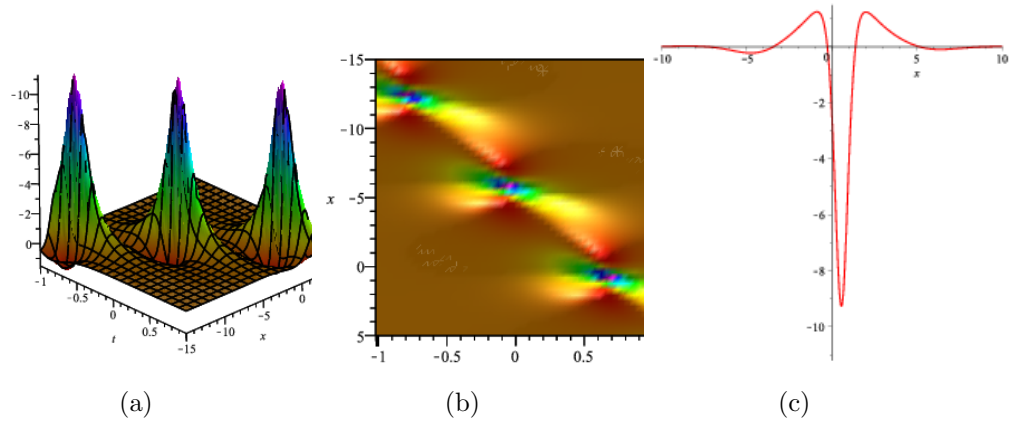

(a)   (b)   (c)

Figure 4: Breather wave solution (18) of Eq.(1) with parameters $p_1 = \frac{3}{5}, p_2 = \frac{4}{5}, b_1 = 3, b_2 = 1, p = -\frac{7}{25}, \alpha = \frac{3}{8}, b = 2, \delta_1 = 1, u_0 = -1, y = 2$. (a) Perspective view of (18). (b) Overhead view of (18). (c) The mode of wave propagation along the x axis.

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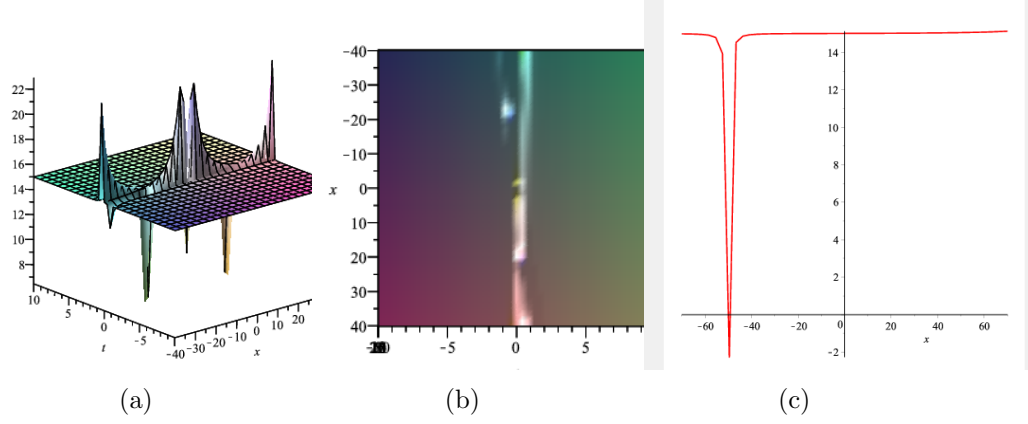(a)   (b)   (c)

Figure 5: Rogue wave solution (19) of Eq.(1) with parameters $s = -1, b_1 = 1, b_2 = 2, p = -1, \alpha = 20, b = 1, \delta_1 = 1, u_0 = 15, y = 0$. (a) Perspective view of (19). (b) Overhead view of (19). (c) The mode of wave propagation along the x axis.

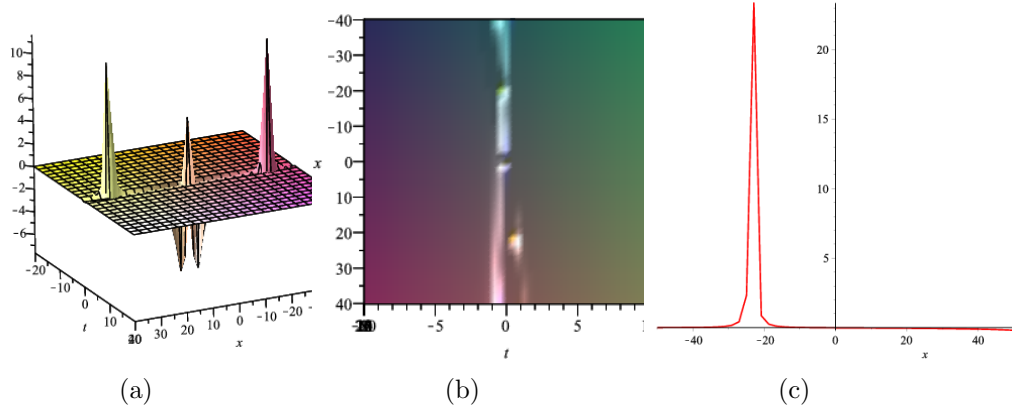(a)   (b)   (c)

Figure 6: Rogue wave solution (19) of Eq.(1) with parameters $s = 1, b_1 = 1, b_2 = 2, p = 1, \alpha = -20, b = 1, \delta_1 = 1, u_0 = 0, y = 0$. (a) Perspective view of (19). (b) Overhead view of (19). (c) The mode of wave propagation along the x axis.

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