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**Baofeng Feng\*** (baofeng.feng@utrgv.edu), 213 E Baylor Ave, Mcallen, TX 78504. *General breather and rogue wave solutions to the complex short pulse equation.*

Based on the KP hierarchy reduction method, we construct multi-breather solutions to the multi-breather and multi-rogue wave solutions to the complex short pulse (CSP). Starting from the tau functions of the Kadomtsev-Petviashvili (KP) hierarchy with singular shift points, we firstly derive a set of bilinear equations. Then by dimension and complex conjugate reductions, the multi-breather solution of the CSP equation is constructed. Furthermore, we construct multi-rogue wave solutions to the CSP equation. (Received August 21, 2018)