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Spiral Solutions of the Two-Dimensional Complex Ginzburg-Landau Equation LIU Shi-Da,<sup>1,2</sup> LIU Shi-Kuo,<sup>1</sup> FU Zun-Tao<sup>1,2</sup> and ZHAO Qiang<sup>1</sup>

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Abstract: The multi-order exact solutions of the two-dimensional complex Ginzburg-Landau equation are obtained by making use of the wave-packet theory. In these solutions, the zeroth-order exact solution is a plane wave, the first-order exact solutions are shock waves for the amplitude and spiral waves both between the amplitude and the shift of phase and between the shift of phase and the distance.

PACS: 02.90.+p, 03.65.Ge Key words: complex Ginzburg-Landau equation, spiral wave solution

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