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A Generalized Extended F-ExpansionMethod and Its Application in (2+1)-Dimensional DispersiveLong Wave Equation

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Abstract: A new generalized extended F-expansion method is presented for finding periodic wave solutions of nonlinear evolution equations in mathematical physics. As an application of this method, we study the (2+1)-dimensional dispersive long wave equation. With the aid of computerized symbolic computation, a number of doubly periodic wave solutions expressed by various Jacobi elliptic functions are obtained. In the limit cases, the solitary wave solutions are derived as well.

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