Special Conditional Similarity Reduction Solutions for Two Nonlinear Partial Differential Equations

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Abstract: We present a method of special conditional similarity reduction solutions for nonlinear partial differential equations. As concrete examples of its application, we apply this method to the (2+1)-dimensional modified Broer-Kaup equations and the variable coefficient KdV-mKdV equation, which have extensive physics backgrounds, and obtain abundant exact solutions derived from some reduction equations.

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