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Conditional Symmetries and Solutions to a Class of Nonlinear Diffusion-Convection Equations

JI Li - Na^{1, 2, 3} and QU Chang-Zheng^{1, 2}

¹ Center for Nonlinear Studies, Northwest University, Xi'an 710069, China
² Department of Mathematics, Northwest University, Xi'an 710069, China
³ Information and Management Science College, Henan Agricultural University, Zhengzhou 450002, China
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Abstract: The present paper discusses a class of nonlinear diffusion-convection equations with source. The method that we use is the conditional symmetry method. It is shown that the equation admits certain conditional symmetries for coefficient functions of the equations. As a consequence, solutions to the resulting equations are obtained.

PACS: 11.10.Lm, 02.90.+p, 11.30.Na Key words: symmetry, nonlinear diffusion--convection equation, conditional symmetry, exact solution

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