

New Exact Solutions and Conservation Laws to (3+1)-Dimensional Potential -YTSF Equation

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Abstract: Using the modified CK's direct method, we build the relationship between new solutions and old ones and find some new exact solutions to the (3+1)-dimensional potential-YTSF equation. Based on the invariant group theory, Lie point symmetry groups and Lie symmetries of the (3+1)-dimensional potential-YTSF equation are obtained. We also get conservation laws of the equation with the given Lie symmetry.

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Key words: new exact solutions, Lie point symmetry groups, conservation laws, (3+1)-dimensional potential -YTSF equation

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