

Certain classes of problems on linear conjugation for a two-dimensional vector admitting explicit solutions

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Abstract

We consider the structure of the set of piecewise meromorphic solutions to the linear conjugation problem for a two-dimensional vector and study its relations with the fractional-linear conjugation problem. We prove that under the assumption of the piecewise meromorphic solvability of any of these problems there exists a canonical system of solutions to the linear conjugation problem and describe classes of problems which are solvable in a closed form. © 2013 Allerton Press, Inc.

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Keywords

fractional-linear conjugation problem, linear conjugation problem, matrix function