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Central projections of a pair of accompanying spaces to a linear two-dimensional space of functions with a continuous first derivative. (English) [Zbl 0599.34044](#)

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M. Laitoch defined a central projection of bundles of integrals relative to the differential equation (q): $y'' = q(t)y$ with a given basis. There is considered a mapping among linear combinations $\alpha y + \beta y'$ and $\gamma y + \delta y'$ of the integral y relative to (q) and its derivative y' , where the numbers of bases $[\alpha, \beta]$ and $[\gamma, \delta]$ satisfy the condition $\alpha \delta - \beta \gamma \neq 0$. The present paper deals with properties of a central projection of functions of a pair of accompanying spaces $P\rho$ $[\alpha, \beta]$ and $P\sigma$ $[\gamma, \delta]$ to a linear two-dimensional space of functions with a continuous first derivative.

MSC:

34C20 Transformation and reduction of ordinary differential equations and systems, normal forms

Keywords:

second order differential equation; central projection of bundles of integrals

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