

On extensions of canonical symplectic structure from coadjoint orbit of complex general linear group.

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Abstract. The Isomonodromic Deformation theory is closely connected with the theory of the phase spaces of the deformation equations. These spaces are the algebraic symplectic spaces constructed from the standard charts. The charts are the coadjoint orbits of $\mathbf{GL}(N, \mathbb{C})$ in the Fuchsian case.

One of the directions of the development of the theory needs to extend the chart, to extend the coadjoint orbit. There are several ways to do it. I introduce an extension method that can be applied to the orbits made from the matrices of arbitrary Jordan type. The method is based on the concept of the flag coordinates on the orbit.

The research was supported by Russian Foundation for Basic Research (RFBR)
No. 18-01-00271.

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