Some Aspects of the Spectral Theory for $\mathrm{sl}\,(3,\mathbb{C})$ System with $\mathbb{Z}_2 \times \mathbb{Z}_2 \times \mathbb{Z}_2$ Reduction of Mikhailov Type with General Position Boundary Conditions

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ABSTRACT

We consider some aspects of the spectral theory of a system that is a generalization to a pole gauge Zakharov-Shabat type system on the Lie algebra sl(3, $\mathbb{C}$) but involving rational dependence on the spectral parameter and is subject to $\mathbb{Z}_2 \times \mathbb{Z}_2 \times \mathbb{Z}_2$ reduction of Mikhailov type. Recently have been considered the question of the existence of analytic fundamental solutions under some special type of boundary conditions, we consider boundary conditions in general position.