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# On Generalized Resolvents and Characteristic Matrices of Differential Operators

The main object of our considerations are differential operators generated by a formally selfadjoint differential expression of an even order on the interval $[0, b\rangle$ $(b \leq \infty)$ with operator valued coefficients. We complement and develop the known Shtraus' results on generalized resolvents and characteristic matrices of the minimal operator $L_0$. Our approach is based on the concept of a decomposing boundary triplet [1] which enables to establish a connection between the Straus' method and boundary value problems (for singular differential operators) with a spectral parameter in a boundary condition. In particular we provide a parametrization of all characteristic matrices $\Omega(\lambda)$ of the operator $L_0$ immediately in terms of the Nevanlinna boundary parameter $\tau(\lambda)$. Such a parametrization is given in the form of the block-matrix representation of $\Omega(\lambda)$ as well as by means of the formula for $\Omega(\lambda)$ similar to the well known Krein-Naimark formula for generalized resolvents.

[1] Mogilevskii V.I.// Meth. Func. Anal. Topol.–2009.– **15**, N 3.