INVERSE PROBLEMS FOR SELF–ADJOINT DIRAC SYSTEMS: 
EXPLICIT SOLUTIONS AND STABILITY OF THE PROCEDURE

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Abstract. A procedure to recover explicitly self-adjoint matrix Dirac systems on the semi-axis 
(with both discrete and continuous components of spectrum) from rational Weyl functions is 
considered. Its stability is proved. GBDT version of Bäcklund-Darboux transformation and 
various important results on Riccati equations are used for this purpose.


Keywords and phrases: Inverse problem, stability, Dirac system, Weyl function, minimal realization, 
explicit solution, Riccati equation.

REFERENCES


