A FINITE INVERSE PROBLEM BY THE DETERMINANT METHOD

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Abstract. We are concerned with the problem of identifying an operator that depends on \( n \) parameters. To this end we use the Poincare determinant to form a characteristic function which relates the \( n \) free parameters to \( n \) given eigenvalues. Using the implicit function theorem we find a condition that guarantees the local solvability of the inverse eigenvalue problem.


Keywords and phrases: Inverse eigenvalue problem, multiparameter eigenvalue problem, Sturm Liouville problem, Poincare determinant.

REFERENCES