

Contents

1. Introduction	1
2. Preliminaries	7
3. Fundamental matrix inequalities	12
4. On $\mathcal{H}(\Theta)$ spaces	18
5. Parametrizations of all solutions	23
6. The equality case	29
7. Nontangential limits	32
8. The Nevanlinna–Pick boundary problem	41
9. A multiple analogue of the Carathéodory–Julia theorem	48
10. On the solvability of a Stein equation	65
11. Positive definite solutions of the Stein equation	76
12. A Carathéodory-Fejér boundary problem	80
13. The full matrix Carathéodory-Fejér boundary problem	87
14. The lossless inverse scattering problem	94
Bibliography	105