

ABSTRACT. In this paper we solve positive and contractive multi-block problems in the Wiener algebra of almost periodic functions of several variables. We thus generalize the classical four block problem that appears in robust control in many ways. The necessary and sufficient conditions are in terms of appropriate Toeplitz (positive case) and Hankel operators (contractive case) on Besikovich space. In addition, a model matching interpretation is given, and some more general patterns are treated as well.