An interpolation problem for Potapov functions

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We will discuss briefly the structure of the Taylor coefficient sequences of matrix-valued functions which belong to the Potapov class (with respect to some signature matrix J) in the open unit disk and which are holomorphic at 0. Furthermore, an interpolation problem for such functions will be considered. Using an access which is based on central Potapov functions, we will present a complete description of the solution set of this problem. Moreover, the corresponding Weyl matrix balls will be discussed. The talk is based on joint work with B. Fritzsche and B. Kirstein.