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Section:

8. Analysis

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On extentions from "one-point set" with minimal norms in Bernstein and Sobolev classes

Let $U_m(\beta, \theta)$, $\beta, \theta > 0$ and Φ_m stand (resp.) for the matrices inverse to the Hilbert matrix $H_m(\beta, \theta) := \| \beta^{j+k}(j+k+\theta)^{-1}\|$, $0 \le j, k \le m$ and to the Vandermonde matrix $V(\lambda_1, \ldots, \lambda_m)$ where $\{\lambda_s\}$ is the set of all roots of the degree $2m$ of $(-1)^{m+1}$ situated in the left halfplane.
Basing on new sharp estimates for maximal elements of $U_m(\beta, \theta)$ and Φ_m the asymptotic behavior of the least possible norms of extrapolations is established for the case when the number of initial conditions tends to infinity.

Reference: Maz'ya, V. L. Sobolev spaces. - Springer Verlag, Berlin, 1985.