Given a domain $D$ in $\mathbb{C}^n$ and $K$ a compact subset of $D$, we denote $A^D_K$ the compact set in $C(K)$, of all restrictions in $K$ of holomorphic functions on $D$ bounded by 1. The sequence $(d_m(A^D_K))_{m \in \mathbb{N}}$ of Kolmogorov $m$-widths of $A^D_K$ provides a measure of the degree of compactness of the set $A^D_K$ in $C(K)$ and the study of its asymptotics has a long history, essentially going back to Kolmogorov’s work on $\epsilon$-entropy of compact sets in the 1950s. The precise statement of this problem is

$$\lim_{m \to \infty} -\log d_m(A^D_K) = 2\pi \left( \frac{n!}{C(K,D)} \right)^{1/n},$$

where $C(K,D)$ is the Bedford-Taylor relative capacity of $K$ in $D$. This problem has already been proved in 2004 by S.N., using pluripotential theory technics. Here, with O. Bandtlow, we give a totally new proof of the asymptotics (1) for $D$ strictly hyperconvex and $K$ non-pluripolar. We proceed by a two-pronged approach establishing sharp upper and lower bounds for the Kolmogorov widths. The lower bounds follow from concentration results for the eigenvalues of a certain family of Toeplitz operators, while the upper bounds follow from an application of the Bergman-Weil formula together with an exhaustion procedure by special holomorphic polyhedra.