

$$\begin{aligned}
C_i &:= \sup_{x_1, \dots, x_N, x'_i} \left| Y_1(x_1, \dots, x_i, \dots, x_N) - Y_1(x_1, \dots, x'_i, \dots, x_N) \right| \\
&\leq \sup_{x_1, \dots, x_N, x'_i} \left| (x_i^\perp)^- \cap (1 + c_{n,N}) B_n \right|,
\end{aligned}$$