$$\bigcap_{k=1}^{N} A_k \mid \bigcap a_{k,d_k} \mid d_k \leq D$$

$A_1 \cap A_2 \mid \{a_{i,1} \cap a_{2,j} \mid j \leq D\}$

$\cdots$

$A_N \mid \{a_{N,j} \mid j \leq D\}$

$\cdots$

$A_1 \mid \{a_i \mid i \leq D\}$

$A_1 \cap A_N \mid \{a_{i,1} \cap a_{N,j} \mid j \leq D\}$

$\cdots$

R^n