

Boolean function  $f$  is  $k$ -interval if – input vector viewed as  $n$ -bit number –  $f$  is true for and only for inputs from given (at most)  $k$  intervals. Recognition of  $k$ -interval function given its DNF representation is coNP-hard problem. This thesis shows that for DNFs from a given solvable class (class  $\mathcal{C}$  of DNFs is solvable if we can for any DNF  $\mathcal{F} \in \mathcal{C}$  decide  $\mathcal{F} \equiv 1$  in polynomial time and  $\mathcal{C}$  is closed under partial assignment) and fixed  $k$  we can decide whether  $\mathcal{F}$  represents  $k$ -interval function in polynomial time.