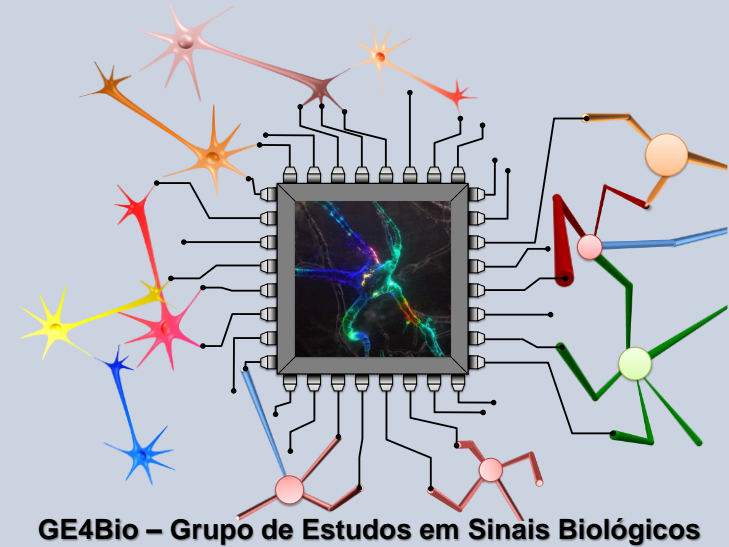


Universidade de São Paulo
Instituto de Ciências Matemáticas e de Computação
Departamento de Sistemas de Computação

SSC512
Elementos de Lógica Digital

Mapa de Karnaugh



Prof.Dr. Danilo Spatti

São Carlos - 2018

- Simplifique a função

$$S = \sum_{A,B,C}(0,1,2,3,7)$$

		AB			
		00	01	11	10
C	0	1	1	0	0
	1	1	1	1	0

$$F(A, B, C) = \bar{A} + BC$$

- Simplifique a função

$$S = \sum_{A,B,C,D}(2,3,5,6,7,10,11,13,14)$$

		AB			
		00	01	11	10
CD	00				
	01		1	1	
	11	1	1		1
	10	1	1	1	1

$$F(A, B, C, D) = \bar{A}C + C\bar{D} + B\bar{C}D + \bar{B}C$$

- Simplifique a função

$$S = \sum_{A,B,C,D}(0,4,8,10,11,12,13,15)$$

		AB			
		00	01	11	10
CD	00	1	1	1	1
	01			1	
	11			1	1
	10				1

$$F(A, B, C, D) = \bar{C}\bar{D} + ABD + A\bar{B}C$$

- Simplifique a função

$$S = \sum_{A,B,C,D}(0,2,4,5,10,11,13,15)$$

		AB			
		00	01	11	10
CD	00	1	1		
	01		1	1	
	11			1	1
	10	1			1

$$F(A, B, C, D) = \bar{A}\bar{C}\bar{D} + B\bar{C}D + ACD + \bar{B}C\bar{D}$$

- Simplifique a função

$$S = \prod_{A,B,C} (4,5,6)$$

		AB			
		00	01	11	10
C	0	1	1	0	0
	1	1	1	1	0

$$F(A, B, C) = (\bar{A} + C)(\bar{A} + B)$$

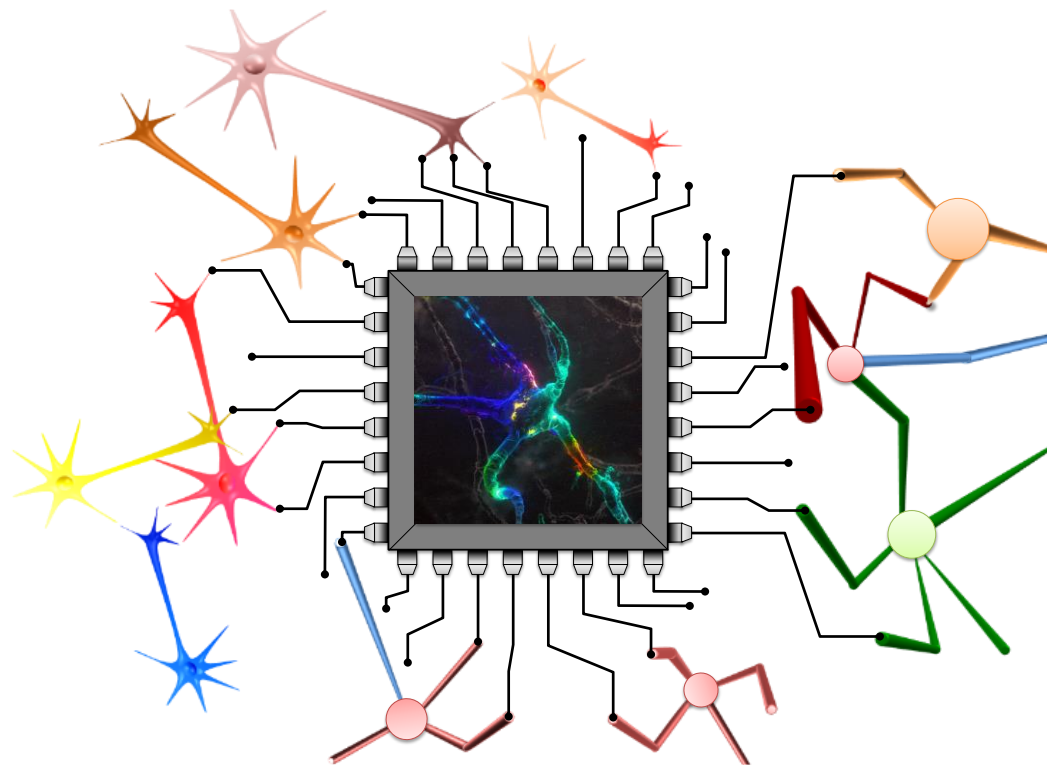
- Simplifique a função

$$S = \prod_{A,B,C,D} (0,1,4,8,9,12,15)$$

		AB			
		00	01	11	10
CD	00	0	0	0	0
	01	0			0
	11			0	
	10				

$$F(A, B, C, D) = (C + D)(B + C)(\bar{A} + \bar{B} + \bar{C} + \bar{D})$$

spatti@icmc.usp.br



GE4Bio – Grupo de Estudos em Sinais Biológicos