

ANN first approximations Activation Function as Neural Networks definition [Activation ANN] actnn Let  $n \in \mathbb{N}$ . We denote by  $i_n \in \mathbb{R}^{n \times n} \times \mathbb{R}^n \times \mathbb{R}^{n \times n} \times \mathbb{R}^n \subseteq \mathbb{R}^{4n^2}$  the neural network given by  $i_n = (I_n, 0_n, I_n, 0_n)$