

$$\mathbb{I}_{\text{SNT}}(X, Y) = \mathbb{S}_{LK}(\mathbb{N}_S(X), \mathbb{T}_M(X, Y))$$

$$\mathbb{S}_{LK}(X, Y) = [\min\{1, \underline{x} + \underline{y}\}, \min\{1, \bar{x} + \bar{y}\}]$$

$$\mathbb{N}_S(X) = [1 - \bar{x}, 1 - \underline{x}]$$

$$\mathbb{T}_M(X, Y) = [\min\{\underline{x}, \underline{y}\}, \min\{\bar{x}, \bar{y}\}]$$

- 1 - Determine a implicação $\mathbb{I}_{\text{SNT}}(X, Y) = \mathbb{S}_{LK}(\mathbb{N}_S(X), \mathbb{T}_M(X, Y))$

$$\mathbb{I}_{\text{SNT}}(X, Y) = \mathbb{S}_{LK}([1 - \bar{x}, 1 - \underline{x}], [\min\{\underline{x}, \underline{y}\}, \min\{\bar{x}, \bar{y}\}])$$

$$\mathbb{I}_{\text{SNT}}(X, Y) = [\min\{1, 1 - \bar{x} + \min\{\underline{x}, \underline{y}\}\}, \min\{1, 1 - \underline{x} + \min\{\bar{x}, \bar{y}\}\}]$$

- 2 - Determine a coimplicação $\mathbb{J}_{\text{SNT}}(X, Y)$ de $\mathbb{I}_{\text{SNT}}(X, Y) = \mathbb{S}_{LK}(\mathbb{N}_S(X), \mathbb{T}_M(X, Y))$

$$\mathbb{J}_{\text{SNT}}(X, Y) = \mathbb{N}_S(X) . \mathbb{I}_{\text{SNT}}(X, Y)$$

$$\mathbb{J}_{\text{SNT}}(X, Y) = \mathbb{N}_S(X) . \mathbb{S}_{LK}(\mathbb{N}_S(X), \mathbb{T}_M(X, Y))$$

$$\mathbb{J}_{\text{SNT}}(X, Y) = \mathbb{S}_{LK}(X, \mathbb{T}_M(\mathbb{N}_S(X), \mathbb{N}_S(Y)))$$

$$\mathbb{J}_{\text{SNT}}(X, Y) = \mathbb{S}_{LK}([\underline{x}, \bar{x}], \mathbb{T}_M([1 - \bar{x}, 1 - \underline{x}], [1 - \bar{y}, 1 - \underline{y}]))$$

$$\mathbb{J}_{\text{SNT}}(X, Y) = [\min\{1, \underline{x} + \min\{1 - \bar{x}, 1 - \bar{y}\}\}, \min\{1, \bar{x} + \min\{1 - \underline{x}, 1 - \underline{y}\}\}]$$

- 3 - Determine a implicação conjugada $\mathbb{I}_{\text{SNT}}^\Phi(X, Y)$ de $\mathbb{I}_{\text{SNT}}(X, Y) = \mathbb{S}_{LK}(\mathbb{N}_S(X), \mathbb{T}_M(X, Y))$

$$\mathbb{J}_{\text{SNT}}^\Phi(X, Y) = \Phi^{-1}(\mathbb{S}_{LK}(\mathbb{N}_S(\Phi(X)), \mathbb{T}_M(\Phi(X), \Phi(Y))))$$

$$\mathbb{J}_{\text{SNT}}^\Phi(X, Y) = \Phi^{-1}(\mathbb{S}_{LK}([1 - \phi(\bar{x}), 1 - \phi(\underline{x})], [\min\{\phi(\underline{x}), \phi(\underline{y})\}, \min\{\phi(\bar{x}), \phi(\bar{y})\}]))$$

$$\mathbb{J}_{\text{SNT}}^\Phi(X, Y) = \Phi^{-1}([\min\{1, 1 - \phi(\bar{x}) + \min\{\phi(\underline{x}), \phi(\underline{y})\}\}, \min\{1, 1 - \phi(\underline{x}) + \min\{\phi(\bar{x}), \phi(\bar{y})\}\}])$$

$$\mathbb{J}_{\text{SNT}}^\Phi(X, Y) = [\phi^{-1}(\min\{1, 1 - \phi(\bar{x}) + \min\{\phi(\underline{x}), \phi(\underline{y})\}\}), \phi^{-1}(\min\{1, 1 - \phi(\underline{x}) + \min\{\phi(\bar{x}), \phi(\bar{y})\}\})]$$