

$$(\text{un}_{\mathcal{U}}^{\mathbf{P}} \circ \text{Unc}(\mathbf{f}))(\textcolor{green}{p}^*, [\textcolor{red}{q}_1, \textcolor{red}{q}_2]) = \bigvee_{[p_1, p_2] \in \textcolor{violet}{\mathbf{Int}}(\mathbf{P})} \text{un}_{\mathcal{U}}^{\mathbf{P}}(\textcolor{green}{p}^*, [\textcolor{red}{p}_1, \textcolor{red}{p}_2]) \wedge \text{Unc}(\textcolor{blue}{f})([\textcolor{green}{p}_1, \textcolor{green}{p}_2]^*, [\textcolor{red}{q}_1, \textcolor{red}{q}_2])$$

$$= \bigvee_{[p_1, p_2] \in \textcolor{violet}{\mathbf{Int}}(\mathbf{P})} (\textcolor{green}{p} \leq \textcolor{red}{p}_1) \wedge \textcolor{violet}{\mathbf{f}}(\textcolor{green}{p}_1^*, \textcolor{red}{q}_1) \wedge \textcolor{violet}{\mathbf{f}}(\textcolor{green}{p}_2^*, \textcolor{red}{q}_2)$$