

$$\begin{aligned}
(\text{Id}_{\mathbf{DP}}(\mathbf{f}) \circ \text{un}_{\mathcal{U}}^{\mathbf{Q}})(p^*, [q_1, q_2]) &= (\mathbf{f} \circ \text{un}_{\mathcal{U}}^{\mathbf{Q}})(p^*, [q_1, q_2]) \\
&= \bigvee_{q \in \mathbf{Q}} \mathbf{f}(p^*, q) \wedge \text{un}_{\mathcal{U}}^{\mathbf{Q}}(q^*, [q_1, q_2]) \\
&= \bigvee_{q \in \mathbf{Q}} \mathbf{f}(p^*, q) \wedge (q \leq q_1).
\end{aligned}$$