

$$\begin{aligned} \text{FixFunMinResBack}(f \circ_{\mathbf{Pos}_{\mathcal{U}}} g)^{\star}(x^*, z) &= z \in (f \circ_{\mathbf{Pos}_{\mathcal{U}}} g)^{\star}(x) \\ &= z \in \bigcup_{y \in f^{\star}(x)} g^{\star}(y). \end{aligned}$$