

$$\sigma_{\xi+1}(\sigma_{\lambda-1}^{-1}(\kappa_a^\ell)) \in (V(\mathcal{S}_a^{\ell+1}) \setminus \{\kappa_a^{\ell+1}\}) \cup (V(\mathcal{S}_b^{\ell+1}) \setminus \{\kappa_b^{\ell+1}\}) \cup V(\mathcal{K}^{\ell+1}).$$