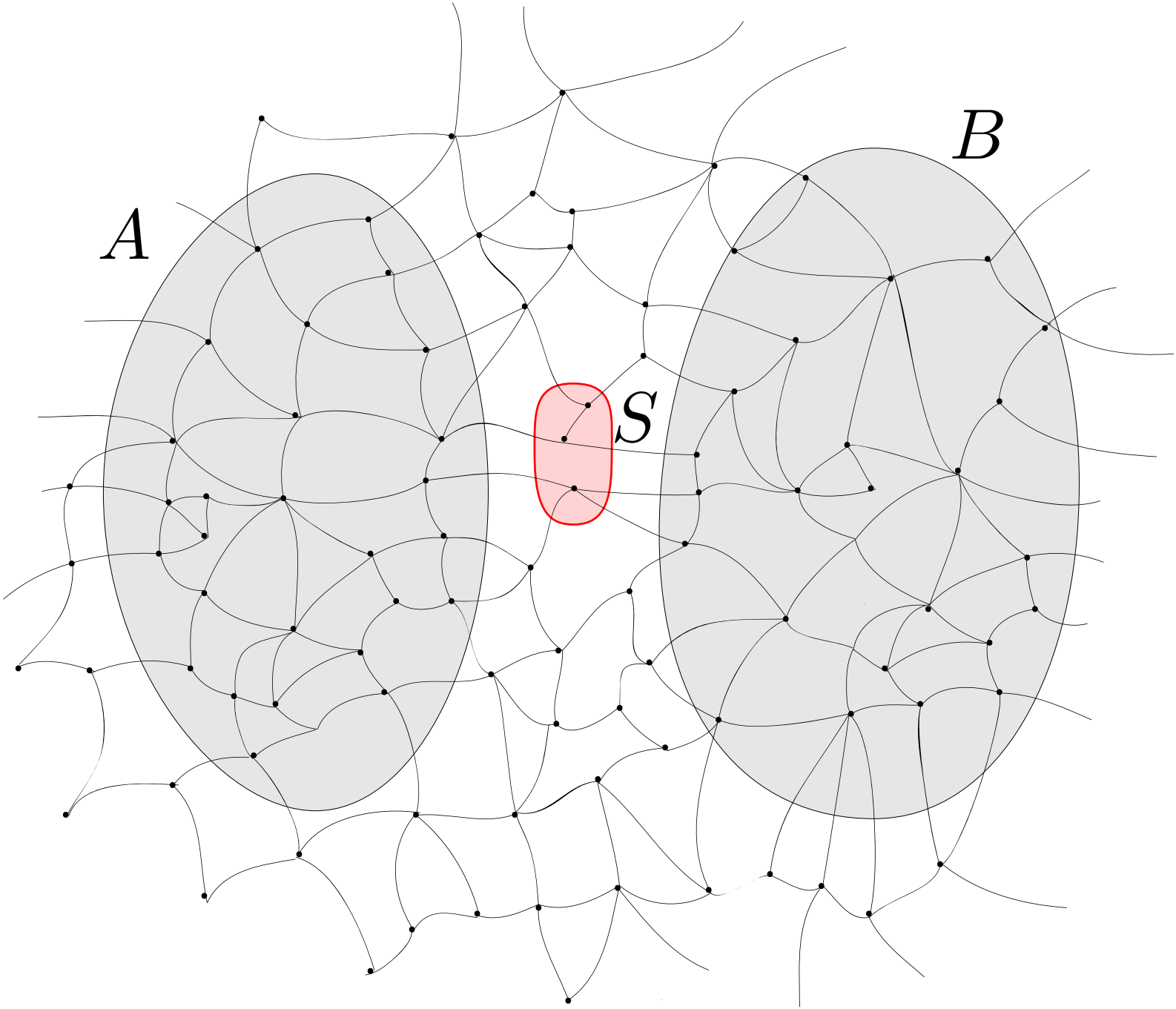
A
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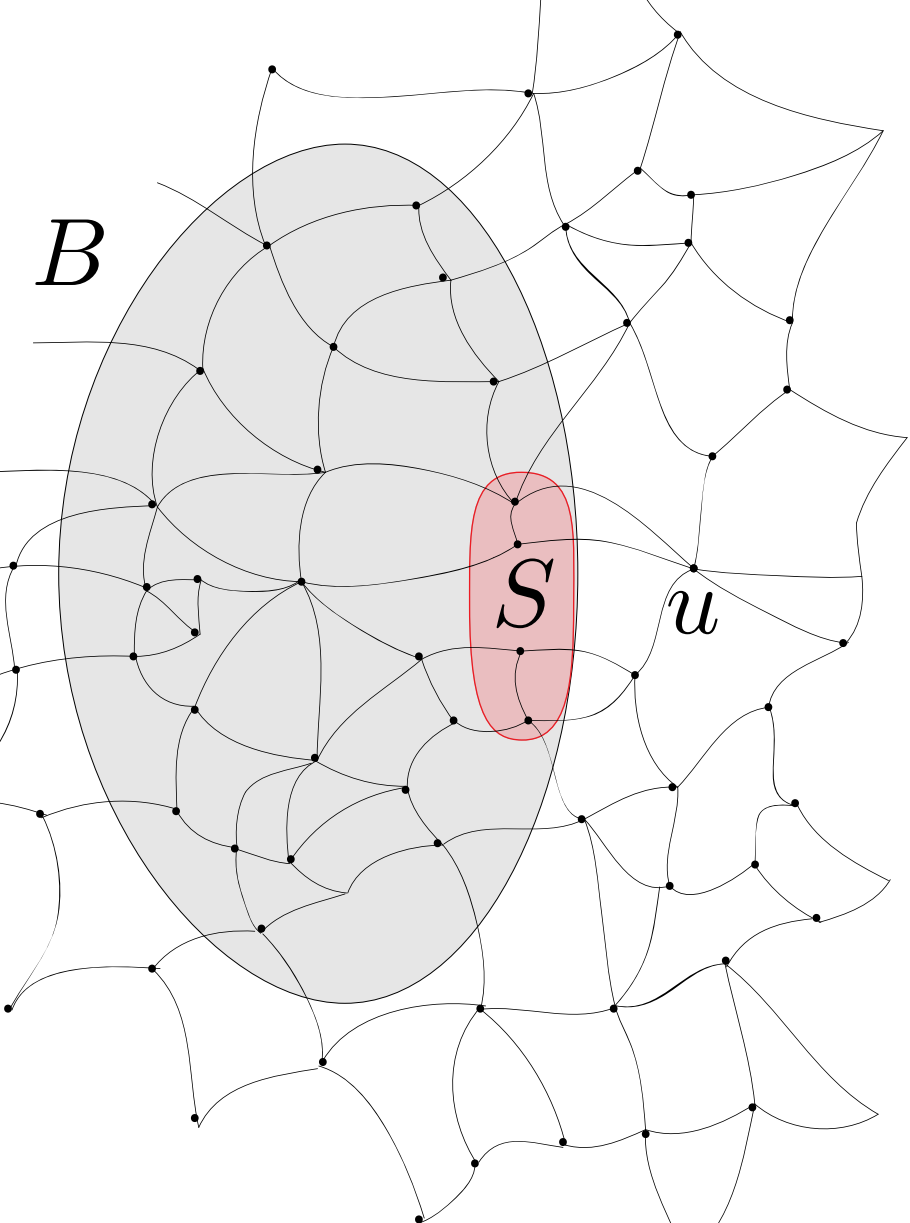
B
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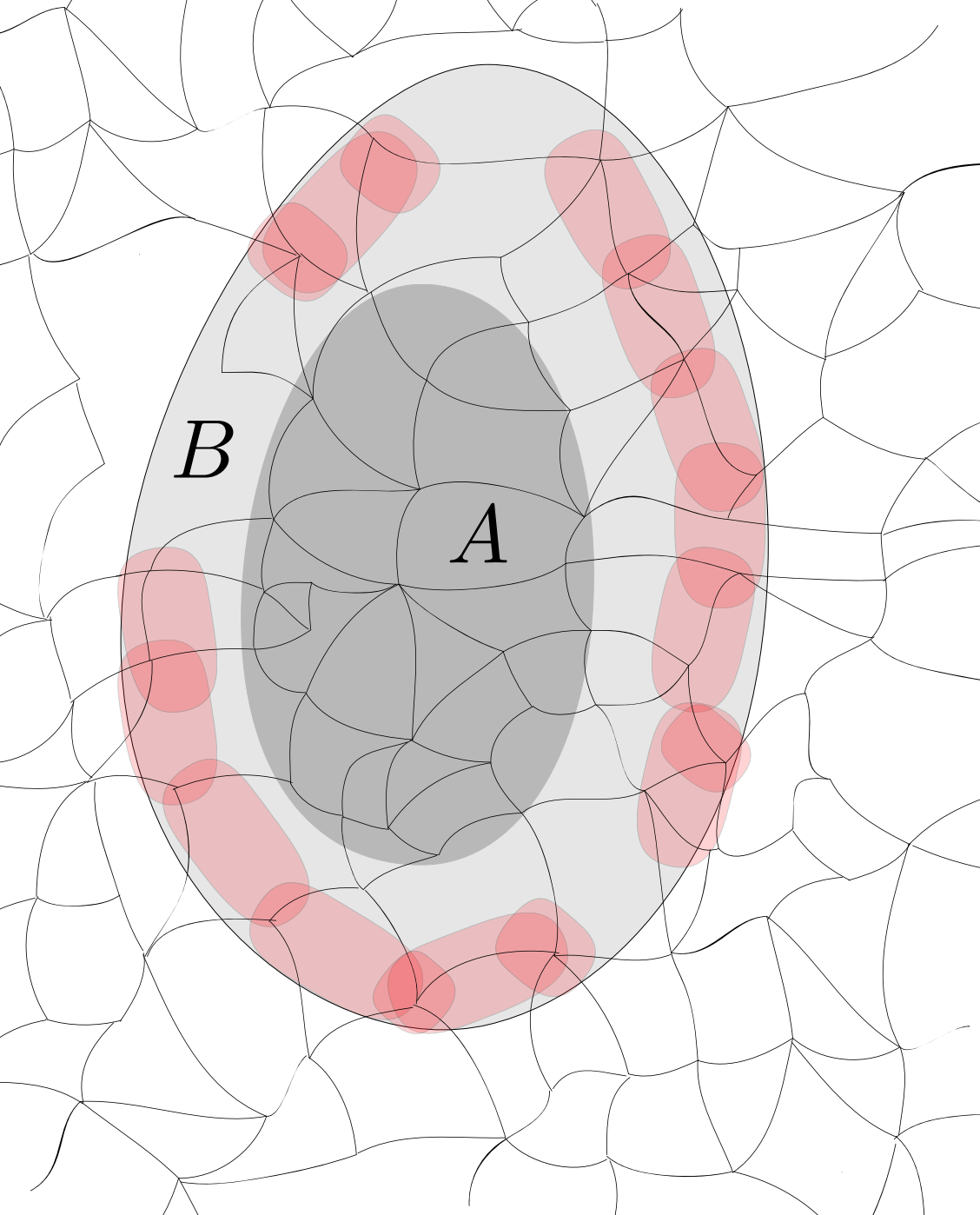
u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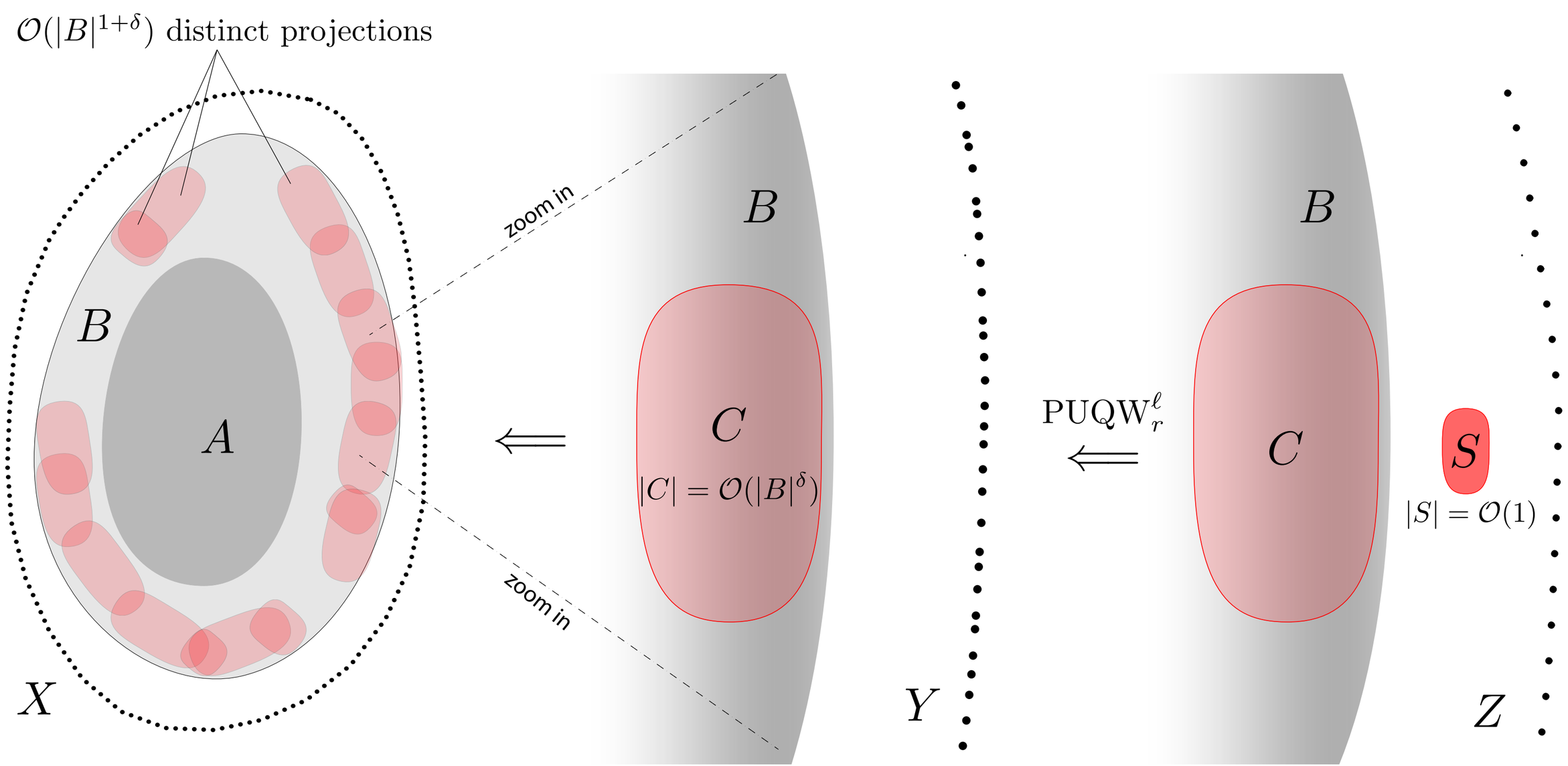

Claim 1. X – set of nodes with distinct φ-types over B. Then $|X| = \mathcal{O}(|B|^{1+\varepsilon_1})$.

Claim 2. $Y \subseteq X$ – set of nodes with the same projection C. Then $|Y| = \mathcal{O}(|B|^{\varepsilon_2})$.

Claim 3. $Z \subseteq Y$ mutually $2r$-separated by S. Then $|Z| = \mathcal{O}(|C|)$.