Definition – Zariski-Local on Target, on Source

Let $P : \mathrm{Mor}(\mathbf{Sch}) \to \mathbf{Prop}$ be a predicate on morphisms of schemes. Then we say :

- P is *local on target* when for all $\varphi \in \mathbf{Sch}(X, Y)$ and Zariski covers $\mathcal{Y}$ of Y, $P(\varphi : X \to Y)$ is true if and only if for all $Y_i \in \mathcal{Y}$, $P(\varphi^{-1}Y_i \to Y_i)$ is true.
- P is *local on source* when for all $\varphi \in \mathbf{Sch}(X, Y)$ and Zariski covers $\mathcal{X}$ of X, $P(\varphi : X \to Y)$ is true if and only if for all $X_i \in \mathcal{X}$, $P(X_i \to X \to Y)$ is true.