$$1 \longrightarrow I_{\mathfrak{P}} \xrightarrow{0} \overrightarrow{\operatorname{Gal}}(\mathbb{k}(\mathfrak{P}/\mathbb{k}(\mathfrak{p}))) \longrightarrow 1$$

$$\downarrow \qquad \qquad \downarrow$$

$$\operatorname{Gal}(\mathbb{k}(\mathfrak{P}/\mathbb{k}(\mathfrak{p} \cap \mathcal{O}_{T_{\mathfrak{P}}})))$$