

$$\mathbf{Cat} \times \mathbf{Cat} \xrightarrow{\star} \mathbf{Cat} \xrightarrow{N} \mathbf{sSet} \xrightarrow{\mathrm{Lan}_{\mathbf{J}}(\delta)} \mathbf{Topos}$$

$$(\mathbf{X}, \mathbf{Y}) \longmapsto \mathbf{X} \star \mathbf{Y} \longmapsto \mathbf{Cat}(\Delta^{\bullet}, \mathbf{X} \star \mathbf{Y}) \longmapsto \mathbf{X} \circledast \mathbf{Y}$$