

$$\begin{array}{ccccc}
 & \xrightarrow{k} & & \xrightarrow{\text{Sing}} & & \xrightarrow{h} \\
 \text{Top} & \perp & \text{CGH} & \perp & \text{Sets}^{\Delta^{\text{op}}} & \perp & \text{Cat} \\
 & \xleftarrow{\quad} & & \xleftarrow{|-|} & & \xleftarrow{N}
 \end{array}$$