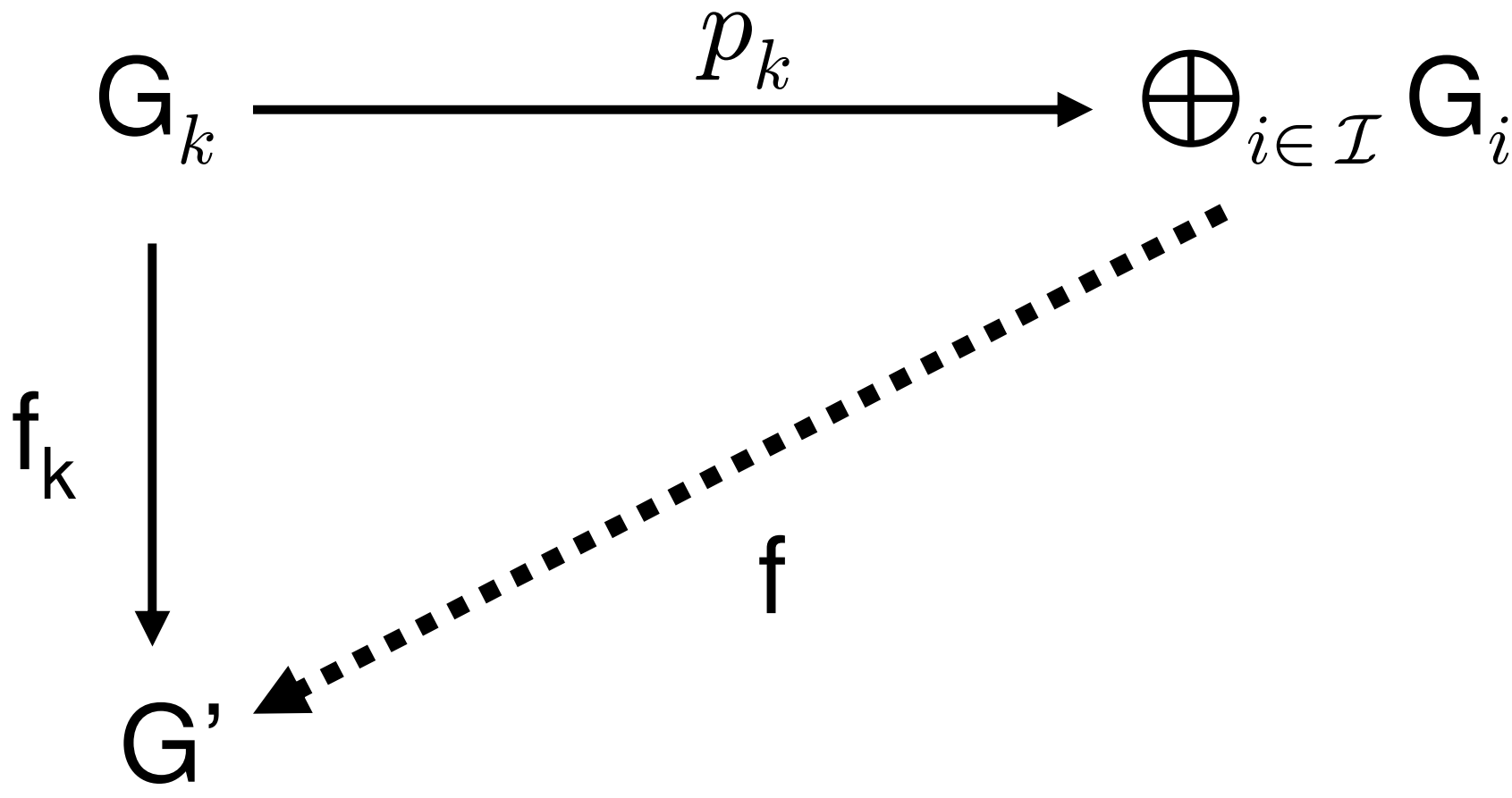
G_k
p_k
$\bigoplus_{i \in \mathcal{I}} G_i$
f_k
f
G'