

**Definition** (Parallel operator  $\otimes$ ). For two maps  $h_1 : F_1 \rightarrow \mathcal{A}R_1$  and  $h_2 : F_2 \rightarrow \mathcal{A}R_2$ , define

$$\begin{aligned} h_1 \otimes h_2 &: (F_1 \times F_2) \rightarrow \mathcal{A}(R_1 \times R_2), \\ \langle f_1, f_2 \rangle &\mapsto h_1(f_1) \times h_2(f_2), \end{aligned}$$

where  $\times$  is the product of two antichains.