$\mathcal{A}\mathbf{R}_2$, define $h_1\otimes h_2: (\mathbf{F}_1\times\mathbf{F}_2) o \mathcal{A}(\mathbf{R}_1\times\mathbf{R}_2),$

 $\langle f_1, f_2 \rangle \mapsto h_1(f_1) \times h_2(f_2),$

Definition (Parallel operator \otimes). For two maps $h_1: \mathbf{F}_1 \to \mathcal{A}\mathbf{R}_1$ and $h_2: \mathbf{F}_2 \to \mathbf{R}_1$

where \times is the product of two antichains.