Proof Let denote the given funcoid as f. $\langle f\rangle(\mathcal{I}\cup\mathcal{J})=\langle f\rangle\mathcal{I}\cup\langle f\rangle\mathcal{J}\subseteq\mathcal{I}\cup\mathcal{J}$, $\langle f\rangle\bigcap S\subseteq\bigcap\langle\langle f\rangle\rangle S\subseteq\bigcap S$. Consequently the filter objects $\mathcal{I}\cup\mathcal{J}$ and $\bigcap S$ are closed. □

Proposition 27 *If S is a set of filter objects closed regarding a complete funcoid, then the filter object $\bigcup S$ is also closed regarding our funcoid.*

Proof $\langle f\rangle\bigcup S=\bigcup\langle\langle f\rangle\rangle S\subseteq\bigcup S$ where f is the given funcoid. □

4 Reloids

Definition 41 *I will call a* ***reloid*** *from a small set A to a small set B a triple $(A;B;F)$ where $F\in\mathfrak{F}(A\times B)$.*

Definition 42 ***Source*** *and* ***destination*** *of every reloid $(A;B;F)$ are defined as*

$$\operatorname{Src}(A;B;F)=A \quad\text{and}\quad \operatorname{Dst}(A;B;F)=B.$$

I will denote $\mathsf{RLD}(A;B)$ the set of reloids from A to B.

I will denote RLD the set of all reloids (for small sets).

Further we will assume that all reloids in consideration are small.

Reloids are a generalization of uniform spaces. Also reloids are generalization of binary relations (I will call a reloid $(A;B;F)$ **principal** when F is a principal filter on $A\times B$.)

I will denote $\operatorname{up}(A;B;F)=\operatorname{up}F$ for every reloid $(A;B;F)$.

Definition 43 *The* ***reverse*** *reloid of a reloid f is defined by the formula*

$$(A;B;F)^{-1}=\left(B;A;\left\{F^{-1}\quad\mid\quad F\in\operatorname{up}f^{-1}\right\}\right).$$

Reverse reloid is a generalization of conjugate quasi-uniformity.

I will denote $\uparrow^{\mathsf{RLD}(A;B)}f=\left(A;B;\uparrow^{A\times B}f\right)$ for every small sets A, B and a binary relation $f\subseteq A\times B$.

The order (in fact a complete lattice) on $\mathsf{RLD}(A;B)$ is defined by the formula

$$(A;B;F)\subseteq(A;B;G)\Leftrightarrow F\subseteq G.$$

We will apply lattice operations to subsets of $\mathsf{RLD}(A;B)$ without explicitly mentioning $\mathsf{RLD}(A;B)$.