Conjecture 26. Every entirely defined monovalued isomorphism of the category of funcoids is a discrete funcoid.

Conjecture 27. For composable reloids f and g it holds

1. $\operatorname{Compl}(g \circ f) = (\operatorname{Compl} g) \circ f$ if f is a co-complete reloid;
2. $\operatorname{CoCompl}(f \circ g) = f \circ \operatorname{CoCompl} g$ if f is a complete reloid;
3. $\operatorname{CoCompl}((\operatorname{Compl} g) \circ f) = \operatorname{Compl}(g \circ (\operatorname{CoCompl} f)) = (\operatorname{Compl} g) \circ (\operatorname{CoCompl} f)$;
4. $\operatorname{Compl}(g \circ (\operatorname{Compl} f)) = \operatorname{Compl}(g \circ f)$;
5. $\operatorname{CoCompl}((\operatorname{CoCompl} g) \circ f) = \operatorname{CoCompl}(g \circ f)$.

Relationships of funcoids and reloids

Conjecture 28. $(\mathsf{RLD})_\Gamma f = (\mathsf{RLD})_{\mathrm{in}} f$ for every funcoid f.

Conjecture 29. $(\mathsf{RLD})_{\mathrm{in}}(g \circ f) = (\mathsf{RLD})_{\mathrm{in}} g \circ (\mathsf{RLD})_{\mathrm{in}} f$ for every composable funcoids f and g.

Conjecture 30. $(\mathsf{RLD})_{\mathrm{out}} \mathrm{id}_{\mathcal{A}}^{\mathsf{FCD}} = \mathrm{id}_{\mathcal{A}}^{\mathsf{RLD}}$ for every filter $\mathcal{A}$.

Conjecture 31. $(\mathsf{RLD})_{\mathrm{in}}$ is not a lower adjoint (in general).

Conjecture 32. $(\mathsf{RLD})_{\mathrm{out}}$ is neither a lower adjoint nor an upper adjoint (in general).

Conjecture 33. If $\mathcal{A} \times^{\mathsf{RLD}} \mathcal{B} \sqsubseteq (\mathsf{RLD})_{\mathrm{in}} f$ then $\mathcal{A} \times^{\mathsf{FCD}} \mathcal{B} \sqsubseteq f$ for every funcoid f and $\mathcal{A} \in \mathfrak{F}(\operatorname{Src} f)$, $\mathcal{B} \in \mathfrak{F}(\operatorname{Dst} f)$.

Conjecture 34. $\rho \bigsqcap F = \bigsqcap \langle \rho \rangle F$ for a set F of reloids. (ρ is defined in [1])

Conjecture 35. For every funcoid g

1. $\operatorname{Cor} (\mathsf{RLD})_{\mathrm{in}} g = (\mathsf{RLD})_{\mathrm{in}} \operatorname{Cor} g$;
2. $\operatorname{Cor} (\mathsf{RLD})_{\mathrm{out}} g = (\mathsf{RLD})_{\mathrm{out}} \operatorname{Cor} g$.

Conjecture 36. For every composable funcoids f and g

$$(\mathsf{RLD})_{\mathrm{out}}(g \circ f) \sqsupseteq (\mathsf{RLD})_{\mathrm{out}}\, g \circ (\mathsf{RLD})_{\mathrm{out}}\, f.$$

Connectedness of funcoids and reloids

Conjecture 37. A filter $\mathcal{A}$ is connected regarding a funcoid μ iff $\mathcal{A}$ is connected for every discrete funcoid $F \in \operatorname{up} \mu$.

Conjecture 38. A filter $\mathcal{A}$ is connected regarding a reloid f iff it is connected regarding the funcoid $(\mathsf{FCD}) f$.