

Composition of funcoids

The composition of binary relations induces for principal funcoids composition which complies with the formulas:

$$\langle g \circ f \rangle = \langle g \rangle \circ \langle f \rangle \quad \text{and} \quad \langle (g \circ f)^{-1} \rangle = \langle f^{-1} \rangle \circ \langle g^{-1} \rangle.$$

We can define *composition* for funcoids by the same formulas. Strictly speaking the composition of funcoids is defined by the formula:

$$(B; C; \alpha_2; \beta_2) \circ (A; B; \alpha_1; \beta_1) = (A; C; \alpha_2 \circ \alpha_1; \beta_1 \circ \beta_2).$$

Composition of funcoids is associative:

$$h \circ (g \circ f) = (h \circ g) \circ f.$$