EVALUATION

fuzzy:evaluation-of set x

PLOTTING

fuzzy:plot set

OPERATIONS WITH SETS

fuzzy:min (= fuzzy:and) list-of-sets
fuzzy:max (= fuzzy:or) list-of-sets

fuzzy:sum *list-of-sets* **fuzzy:prob-or** *list-of-sets*

fuzzy:not set

fuzzy:truncate *set number* **fuzzy:prod** *set number*

HEDGES

fuzzy:power *set number*

DEFUZZIFICATION

fuzzy:FOM-of set fuzzy:LOM-of set fuzzy:MOM-of set fuzzy:MeOM-of set fuzzy:COG-of set

LABELS

fuzzy:set-with-label string fuzzy:set-label-of set string fuzzy:clear-label-of set fuzzy:clear-label string fuzzy:clear-all-labels fuzzy:label-of set fuzzy:has-label? set fuzzy:label-exists? string

CREATION OF FUZZY SETS FROM SCRATCH

fuzzy:discrete-numeric-set $[[x_1 y_1] [x_2 y_2] ... [x_n y_n]]$ fuzzy:discrete-numeric-set-with-label $[[x_1 y_1] [x_2 y_2] ... [x_n y_n]]$

fuzzy:piecewise-linear-set $[[x_1 \ y_1] \ [x_2 \ y_2] \ ... \ [x_n \ y_n]]$ fuzzy:piecewise-linear-set-with-label label $[[x_1 \ y_1] \ [x_2 \ y_2] \ ... \ [x_n \ y_n]]$

fuzzy:trapezoidal-set [a b c d e f height]
 fuzzy:trapezoidal-set-with-label label [a b c d e f height]

fuzzy:logistic-set [x_0 a b [lower-limit upper-limit]] **fuzzy:logistic-set-with-label** [abel [x_0 a b [lower-limit upper-limit]]

fuzzy:gaussian-set [m s [lower-limit upper-limit]] **fuzzy:gaussian-set-with-label** [m s [lower-limit upper-limit]]

fuzzy:exponential-set [a b c [lower-limit upper-limit]] **fuzzy:exponential-set-with-label** [a b c [lower-limit upper-limit]]

fuzzy:interval-with-points-set [[[a b] v] [[$x_1 y_1$] [$x_2 y_2$] ... [$x_n y_n$]]] fuzzy:interval-with-points-set-with-label /b/ [[[a b] v] [[$x_1 y_1$]... [$x_n y_n$]]]

RULES

fuzzy:truncate-rule (= fuzzy:rule) list-of-2-items consequent-fuzzy:set fuzzy:prod-rule list-of-2-items consequent-fuzzy:set fuzzy:min-truncate-rule (= fuzzy:and-rule) list-of-2-item-lists consequent-fuzzy:set fuzzy:max-truncate-rule (= fuzzy:or-rule) list-of-2-item-lists consequent-fuzzy:set

fuzzy:min-prod-rule *list-of-2-item-lists consequent-fuzzy:set* **fuzzy:max-prod-rule** *list-of-2-item-lists consequent-fuzzy:set*