

demo2D
n: int
threshold: int
show_plot: bool
show_lively_plot: bool
run_all: bool
void
path: String
data: String
wmax: float
wmin: float
dw: float
w: float[0..n]

functionName
arguments: type
return: type
function_variables: type

shapeSuperquadric
aux_name: String
file: String
threshold: int
w: float[0..n]
show_plot: bool
show_lively_plot: bool
n_superquadrics: int
max_superquadrics: int
scan: float[1..*][1..*]
x2Dv: float[1..*]
y2Dv: float[1..*]
x2Dv_temp: float[1..*]
y2Dv_temp: float[1..*]
name: String
fd_save: int file identifier
index_min: int
all_index_min: [0..*]
n_segmentations: int
npoints_nextseg: int
paramval2D: float[6]
corrected: int
index_mom: int
corrected_mom: int

minimizeSuperquadric
x2Dvseg: float[1..*]
y2Dvseg: float[1..*]
w: float[0..n]
want_plot: bool
paramval2D: float[6]
fval: float
X_tolerance: float
fun_tolerance: float
theta: float
epsilon2: float
max_x, max_y: float
min_x, min_y: float
a1_lb, a1_ub: float
a2_lb, a2_ub: float
avg_x_lb, avg_x_ub: float
avg_y_lb, avg_y_ub: float
theta_lb, theta_ub: float
epsilon2_lb, epsilon2_ub: float
avg_x, avg_y: float
sgn_avg_x, sgn_avg_y: int
norm_x2Dvseg, norm_y2Dvseg: float
a: float[2]
paramval2D_init: float[6]
lb, ub: float[6]

superquadricCheckInnerPoint
x2Dvseg: float[1..*]
y2Dvseg: float[1..*]
paramval2D: float[6]
x2Dv: float[1..*]
y2Dv: float[1..*]
index_min: int
corrected: int
index_mom: int
corrected_mom: int
a: float[2]
theta: float
epsilon2: float
ctheta: float
stheta: float
Rmat = float[2][2]
x2Dvm_e: float[1..*]
y2Dvm_e: float[1..*]
rotate_d_xy: [2][1..*]
x2Dvm_i: float
intermediate_point: int
F1_2d, F2_2d: float
F: float
F1_2d_e, F2_2d_e: float
F_e: float
grad_x, grad_y: float
grad_x_p1, grad_y_p1: float
split_mom: float
xmin, ymin: float
x1, x2: float
y1, y2: float
d1, d2: float
test, test_e: float

objFunFit2D
paramval2D: float[6]
x2Dv: float[1..*]
y2Dv: float[1..*]
w: float[0..n]
want_plot: bool
error_fit_2d: float
a: float[2]
meanval: float[2]
theta: float
epsilon2: float
ctheta: float
stheta: float
Rmat: float[2][2]
x2Dvm: float[1..*]
y2Dvm: float[1..*]
rotate_d_xy[2][1..*]
F1_2d: float[1..*]
F2_2d: float[1..*]
F: float[1..*]
grad_x: float[1..*]
grad_y: float[1..*]
rotate_d_grad[2][1..*]
grad_r: float[1..*]
dimsys: int
err_grad: float
rzero: float[1..*]
err1: float

gradF2D
F1, F2: float[1..*]
xm, ym: float[1..*]
epsilon_est: float
grad_x: float
grad_y: float
threshold: float