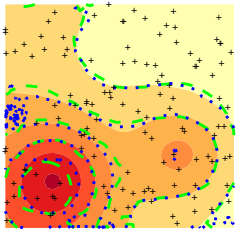
f



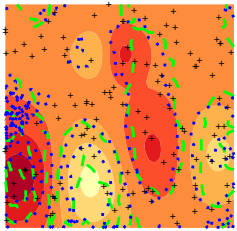
irregular data grid 121 pts
colors = exaxt values
dashed green = global bw
dotted blue = local bw
crosses: data points

f(x,y) =0.75*exp(−((9*x−2)^2+(9*y−2)^2)/4)+0.75*exp(−((9*x+1)^2/49+(9*y+1)/10))+0.5*exp(−((9*x−7)^2+(9*y−3)^2)/4)−0.2*exp(−((9*x−4)^2+(9*y−7)^2))

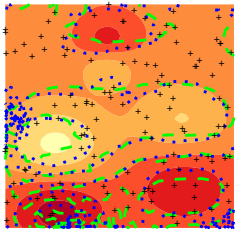
f_x(x,y) =((−60.75)*exp(−((9*x−2)^2+(9*y−2)^2)/4)*x+13.5*exp(−((9*x−2)^2+(9*y−2)^2)/4))/2+((−121.5)*x*exp(−((9*x+1)^2/49+(9*y+1)/10)))/49+((−40.5)*x*exp(−((9*x−7)^2+(9*y−3)^2)/4))/2+0.324e2*x*exp(−((9*x−4)^2+(9*y−7)^2))+((−13.5)*exp(−((9*x+1)^2/49+(9*y+1)/10)))/49+(31.5*exp(−((9*x−7)^2+(9*y−3)^2)/4))/2−0.144e2*exp(−((9*x−4)^2+(9*y−7)^2))

f_y(x,y) =((−60.75)*exp(−((9*x−2)^2+(9*y−2)^2)/4)*y+13.5*exp(−((9*x−2)^2+(9*y−2)^2)/4))/2+((−40.5)*y*exp(−((9*x−7)^2+(9*y−3)^2)/4))/2+0.324e2*y*exp(−((9*x−4)^2+(9*y−7)^2))+((−6.75)*exp(−((9*x+1)^2/49+(9*y+1)/10)))/10+(13.5*exp(−((9*x−7)^2+(9*y−3)^2)/4))/2−0.252e2*exp(−((9*x−4)^2+(9*y−7)^2))

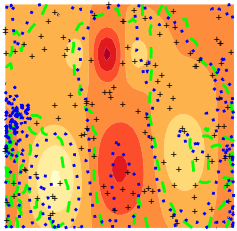
f_x



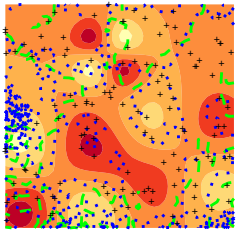
f_x



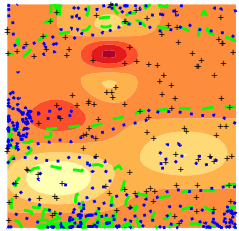
f_xx



f_xy

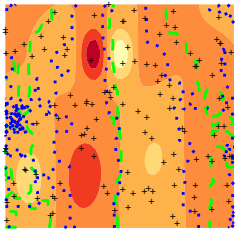


f_yy

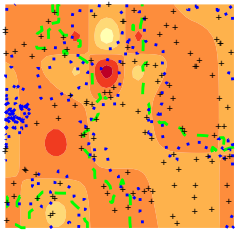


kernel: uniform
global bandwidth 33 %
local bandwidth 11 %

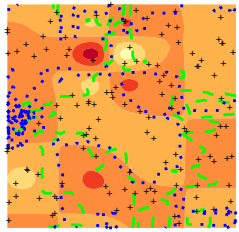
f_xxx



f_xxy



f_xyy



f_yyy