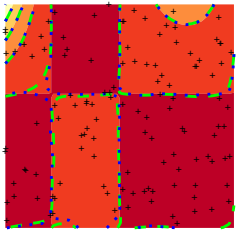
f



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

f(x,y) =x^3*y^2−0.6*x^3*y+(−1.7)*x^2*y^2+1.02*x^2*y+0.8*x*y^2−0.48*x*y+(−0.1)*y^2+0.06*y

f_x(x,y) =3*x^2*y^2−1.8*x^2*y+(−3.4)*x*y^2+2.04*x*y+0.8*y^2−0.48*y

f_y(x,y) =2*x^3*y−0.6*x^3+(−3.4)*x^2*y+1.02*x^2+1.6*x*y−0.48*x+(−0.2)*y+0.06

f_xx(x,y) =6*x*y^2−3.6*x*y+(−3.4)*y^2+2.04*y

f_yy(x,y) =2*x^3−3.4*x^2+1.6*x−0.2

f_xy(x,y) =6*x^2*y−1.8*x^2+(−6.8)*x*y+2.04*x+1.6*y−0.48

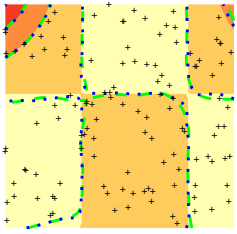
f_xxx(x,y) =6*y^2−3.6*y

f_yyy(x,y) =0

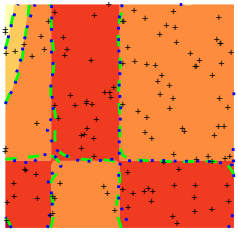
f_xxy(x,y) =12*x*y−3.6*x+(−6.8)*y+2.04

f_xyy(x,y) =6*x^2−6.8*x+1.6

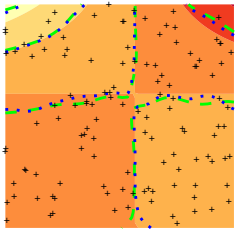
f_x



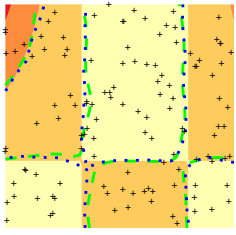
f_x



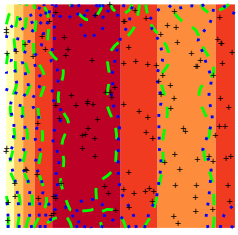
f_xx



f_xy

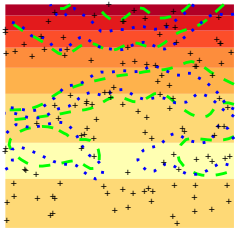


f_yy

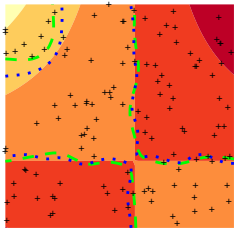


kernel: gaussian
global bandwidth 33 %
local bandwidth 11 %

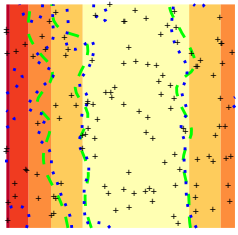
f_xxx



f_xxy



f_xyy



f_yyy