All

X=[7.1815,33.7831,71.2231,149.6921,281.8385,484.8377,676.9354,927.3245,1387.0529,2925.8125,5207.716];

Y=[14681.0,21244.0,28165.0,27106.5,19497.5,34853.0,10340.0,1549.0,26.5,28.5,0.0];

cftool;

General model Gauss2:

f(x) = a1\*exp(-((x-b1)/c1)^2) + a2\*exp(-((x-b2)/c2)^2)

Coefficients (with 95% confidence bounds):

a1 = 3.578e+04 (3.402e+04, 3.753e+04)

b1 = 451.6 (441.1, 462)

c1 = 202.9 (190.4, 215.4)

a2 = 2.89e+04 (2.723e+04, 3.058e+04)

b2 = 98.11 (91.73, 104.5)

c2 = 109.7 (96.58, 122.8)

Goodness of fit:

SSE: 2.07e+06

R-square: 0.9987

Adjusted R-square: 0.9975

RMSE: 643.4

Cluster3

X=[7.3674,36.9082,70.5286,164.5487,281.6859,512.5617,719.3167,938.91,1155.2];

Y=[9383.5,9249.0,12213.0,21113.0,11687.0,9295.5,625.0,487.0,53.0] ;

cftool;

General model Gauss1:

f(x) = a1\*exp(-((x-b1)/c1)^2)

Coefficients (with 95% confidence bounds):

a1 = 1.643e+04 (1.071e+04, 2.215e+04)

b1 = 231.9 (141.5, 322.3)

c1 = 311.9 (158.4, 465.3)

Goodness of fit:

SSE: 5.676e+07

R-square: 0.8514

Adjusted R-square: 0.8019

RMSE: 3076

X=[7.4194,34.1877,71.8034,142.6061,284.6148,479.9387,658.616,895.6375,1381.8775,3154.31,4535.32];

Y=[19195.0,28785.0,34359.0,34914.0,24452.5,40598.0,51033.0,1091.0,0.0,28.5,0.0] ;

cftool;

General model Gauss2:

f(x) = a1\*exp(-((x-b1)/c1)^2) + a2\*exp(-((x-b2)/c2)^2)

Coefficients (with 95% confidence bounds):

a1 = 6.171e+04 (4.356e+04, 7.986e+04)

b1 = 588.8 (568, 609.7)

c1 = 159.4 (80.93, 237.9)

a2 = 3.691e+04 (3.181e+04, 4.201e+04)

b2 = 145.6 (120.3, 170.8)

c2 = 195.3 (145.9, 244.6)

Goodness of fit:

SSE: 2.479e+07

R-square: 0.9928

Adjusted R-square: 0.9856

RMSE: 2227

X=[6.3752,31.4394,68.9383,155.582,272.4628,479.471,669.826,950.3225,1441.704,2697.315,5731.8933];

Y=[10727.5,18301.0,18501.0,22400.0,10237.5,45043.0,10340.0,32255.5,162.0,225.5,0.0] ;

cftool;

General model Gauss1:

f(x) = a1\*exp(-((x-b1)/c1)^2)

Coefficients (with 95% confidence bounds):

a1 = 2.834e+04 (1.194e+04, 4.475e+04)

b1 = 589.6 (244, 935.3)

c1 = 690.7 (101.6, 1280)

Goodness of fit:

SSE: 9.654e+08

R-square: 0.5181

Adjusted R-square: 0.3977

RMSE: 1.099e+04

Cluster4

X=[7.4049,34.98,71.48,166.3645,275.1579,510.088,719.3167,938.91,1155.2];

Y=[9073.0,8728.0,11062.0,16510.0,10720.5,7072.0,625.0,487.0,53.0] ;

cftool;

General model Gauss1:

f(x) = a1\*exp(-((x-b1)/c1)^2)

Coefficients (with 95% confidence bounds):

a1 = 1.374e+04 (1.052e+04, 1.696e+04)

b1 = 216.1 (148.9, 283.3)

c1 = 320.9 (204.7, 437.1)

Goodness of fit:

SSE: 1.953e+07

R-square: 0.9246

Adjusted R-square: 0.8995

RMSE: 1804

X=[6.3033,32.8769,68.406,161.0709,277.0953,478.3371,669.826,950.3225,1429.66,2752.63,6197.225];

Y=[9541.0,17341.5,16214.0,26426.0,8693.0,30197.0,10340.0,32255.5,188.5,0.0,0.0] ;

cftool;

General model Gauss1:

f(x) = a1\*exp(-((x-b1)/c1)^2)

Coefficients (with 95% confidence bounds):

a1 = 2.348e+04 (1.016e+04, 3.681e+04)

b1 = 594 (208.6, 979.3)

c1 = 788.6 (66.44, 1511)

Goodness of fit:

SSE: 6.829e+08

R-square: 0.5155

Adjusted R-square: 0.3944

RMSE: 9239

X=[7.6589,34.3413,70.5664,139.4914,280.8619,486.013,675.06,825.715,1436.83];

Y=[20446.0,22191.0,37237.0,39921.0,17352.5,45414.0,19207.5,774.5,0.0] ;

cftool;

General model Gauss2:

f(x) = a1\*exp(-((x-b1)/c1)^2) + a2\*exp(-((x-b2)/c2)^2)

Coefficients (with 95% confidence bounds):

a1 = 4.607e+04 (3.582e+04, 5.633e+04)

b1 = 505.8 (415.2, 596.4)

c1 = 179.4 (76.93, 281.8)

a2 = 4.076e+04 (3.316e+04, 4.835e+04)

b2 = 119.1 (60.69, 177.4)

c2 = 124.9 (41.17, 208.7)

Goodness of fit:

SSE: 2.283e+07

R-square: 0.9889

Adjusted R-square: 0.9705

RMSE: 2759

X=[7.1977,33.8992,72.31,147.0607,286.0522,479.3965,647.6533,965.56,1379.5571,2983.54,4668.275];

Y=[17384.0,30933.0,30543.5,25825.5,28952.5,43794.0,67780.0,4470.0,162.0,57.0,0.0] ;

cftool;

General model Gauss1:

f(x) = a1\*exp(-((x-b1)/c1)^2)

Coefficients (with 95% confidence bounds):

a1 = 5.196e+04 (3.296e+04, 7.096e+04)

b1 = 498.1 (349.9, 646.3)

c1 = 468.2 (255.6, 680.7)

Goodness of fit:

SSE: 1.105e+09

R-square: 0.7573

Adjusted R-square: 0.6966

RMSE: 1.175e+04

Cluster5

X=[9.0025,38.3683,81.185,149.195,276.435,442.42,640.58,1250.67];

Y=[13434.5,21598.5,35990.0,36725.0,27911.0,66050.0,55312.0,0.0] ;

cftool;

General model Gauss2:

f(x) = a1\*exp(-((x-b1)/c1)^2) + a2\*exp(-((x-b2)/c2)^2)

Coefficients (with 95% confidence bounds):

a1 = -1.938e+08 (-8.947e+15, 8.947e+15)

b1 = 361.1 (-7.003e+05, 7.01e+05)

c1 = 204.8 (-1.591e+06, 1.592e+06)

a2 = 1.939e+08 (-8.947e+15, 8.947e+15)

b2 = 361.1 (-7.006e+05, 7.013e+05)

c2 = 204.8 (-1.592e+06, 1.592e+06)

Goodness of fit:

SSE: 4.468e+07

R-square: 0.9862

Adjusted R-square: 0.9517

RMSE: 4726

X=[7.1391,33.0664,69.7212,145.3319,291.8076,483.6625,679.4775,956.172,1426.886,2983.54,4668.275];

Y=[16735.5,33024.5,32672.0,26327.5,38180.0,45043.0,59406.5,17288.0,162.0,57.0,0.0] ;

cftool;

General model Gauss2:

f(x) = a1\*exp(-((x-b1)/c1)^2) + a2\*exp(-((x-b2)/c2)^2)

Coefficients (with 95% confidence bounds):

a1 = 3.912e+04 (-1.496e+05, 2.279e+05)

b1 = 709 (529.9, 888.2)

c1 = 216.3 (-313.2, 745.8)

a2 = 3.593e+04 (-1665, 7.352e+04)

b2 = 316.6 (-1051, 1685)

c2 = 494.2 (-1218, 2207)

Goodness of fit:

SSE: 1.632e+08

R-square: 0.9579

Adjusted R-square: 0.9157

RMSE: 5714

X=[6.2952,36.5275,70.7917,169.715,273.7636,504.7067,719.3167,938.91,1155.2];

Y=[7613.0,7872.5,10876.5,13858.0,5784.5,11519.0,625.0,487.0,53.0] ;

cftool;

General model Gauss1:

f(x) = a1\*exp(-((x-b1)/c1)^2)

Coefficients (with 95% confidence bounds):

a1 = 1.1e+04 (5595, 1.64e+04)

b1 = 240.2 (36.65, 443.7)

c1 = 430.7 (63.63, 797.7)

Goodness of fit:

SSE: 6.221e+07

R-square: 0.7098

Adjusted R-square: 0.613

RMSE: 3220

X=[7.8225,34.1419,71.7273,141.6168,279.5989,493.9523,675.06,825.715,1436.83];

Y=[19888.0,25030.5,34596.0,38518.5,17352.5,21797.0,19207.5,774.5,0.0] ;

cftool;

General model Gauss2:

f(x) = a1\*exp(-((x-b1)/c1)^2) + a2\*exp(-((x-b2)/c2)^2)

Coefficients (with 95% confidence bounds):

a1 = 3.926e+04 (3.641e+04, 4.21e+04)

b1 = 135.9 (126.6, 145.3)

c1 = 156.8 (141.7, 171.9)

a2 = 3.35e+04 (1.211e+04, 5.49e+04)

b2 = 579.2 (566.3, 592)

c2 = 128.5 (47.17, 209.9)

Goodness of fit:

SSE: 3.087e+06

R-square: 0.9977

Adjusted R-square: 0.994

RMSE: 1014

X=[5.5824,31.0258,71.35,171.9043,264.79,469.946,644.5333,951.55,1377.04,2752.63,6197.225];

Y=[9317.0,14741.0,16214.0,18164.0,5844.5,4603.0,5123.0,0.0,377.0,0.0,0.0] ;

cftool;

General model Gauss1:

f(x) = a1\*exp(-((x-b1)/c1)^2)

Coefficients (with 95% confidence bounds):

a1 = 2.009e+04 (1.411e+04, 2.606e+04)

b1 = 120.4 (94.63, 146.1)

c1 = 136.2 (85.54, 186.8)

Goodness of fit:

SSE: 5.353e+07

R-square: 0.8875

Adjusted R-square: 0.8593

RMSE: 2587