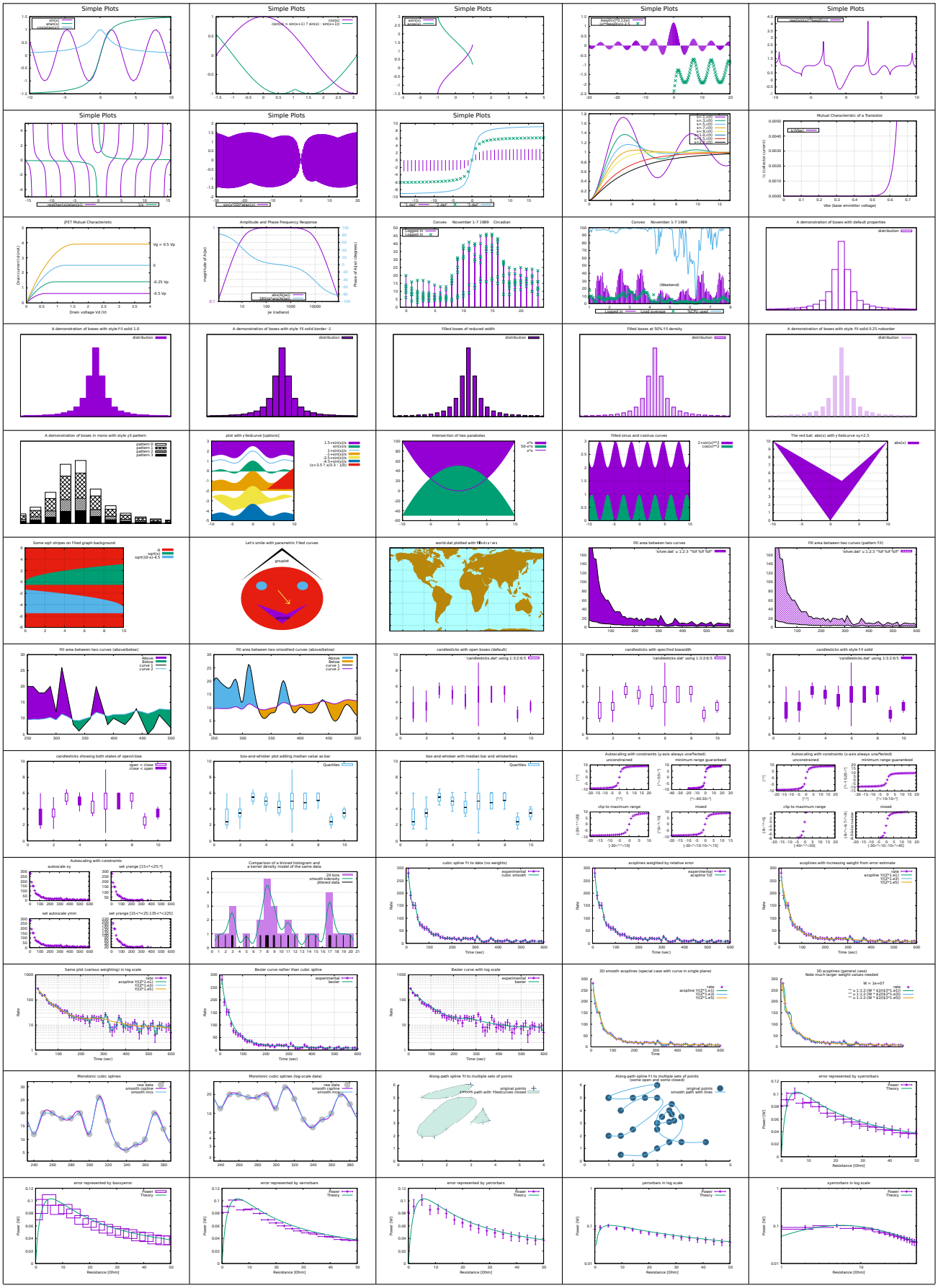
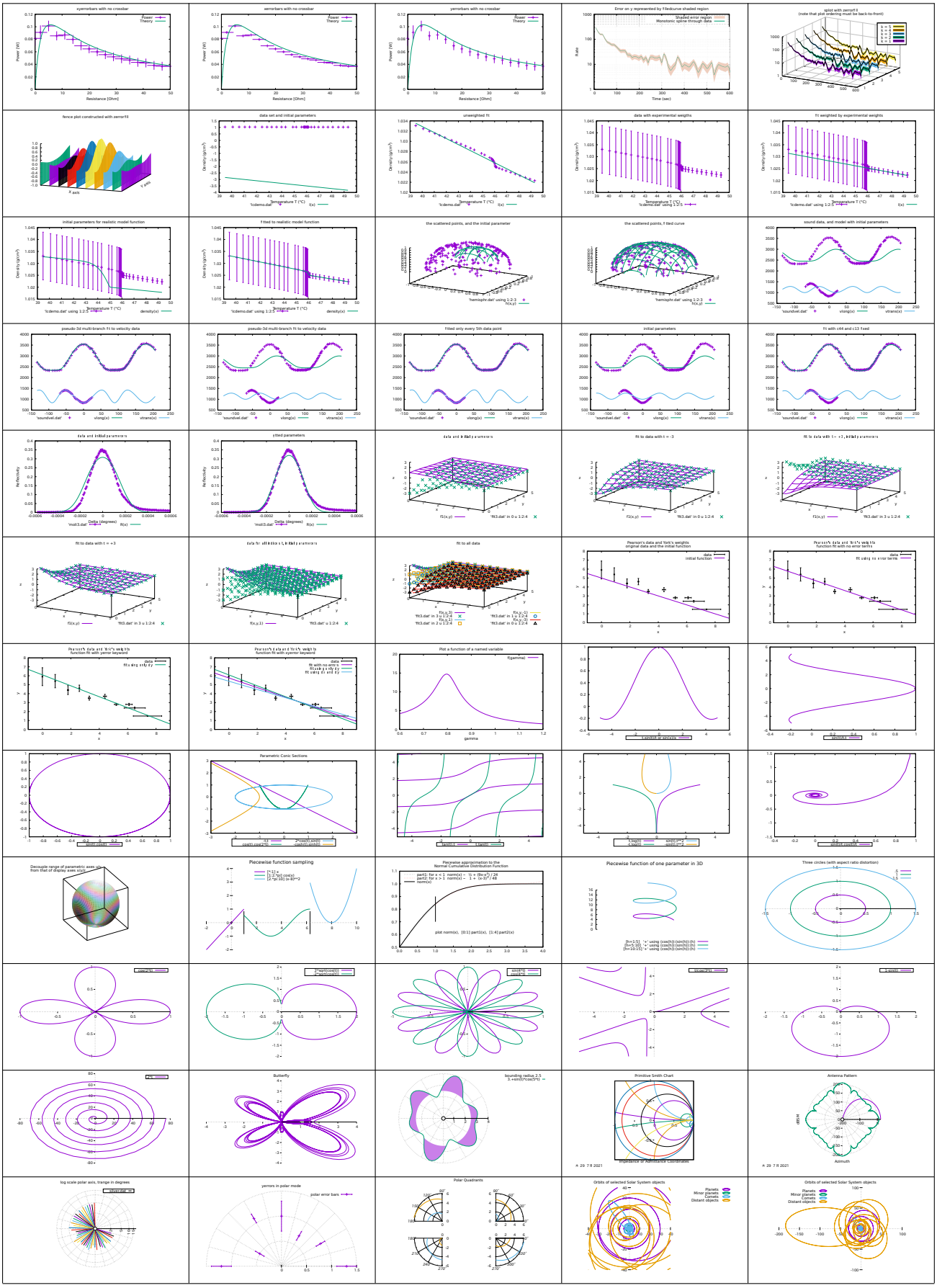
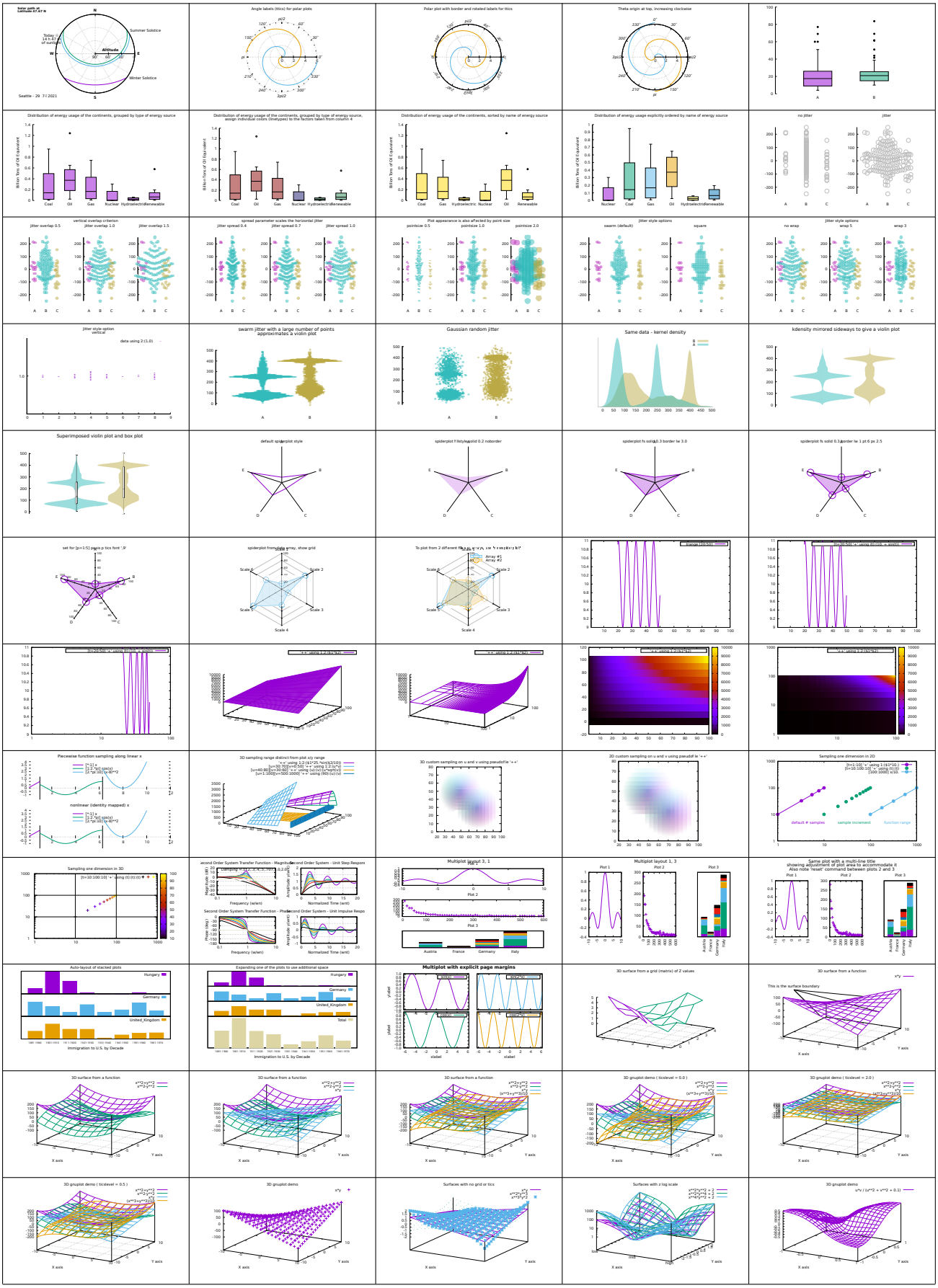
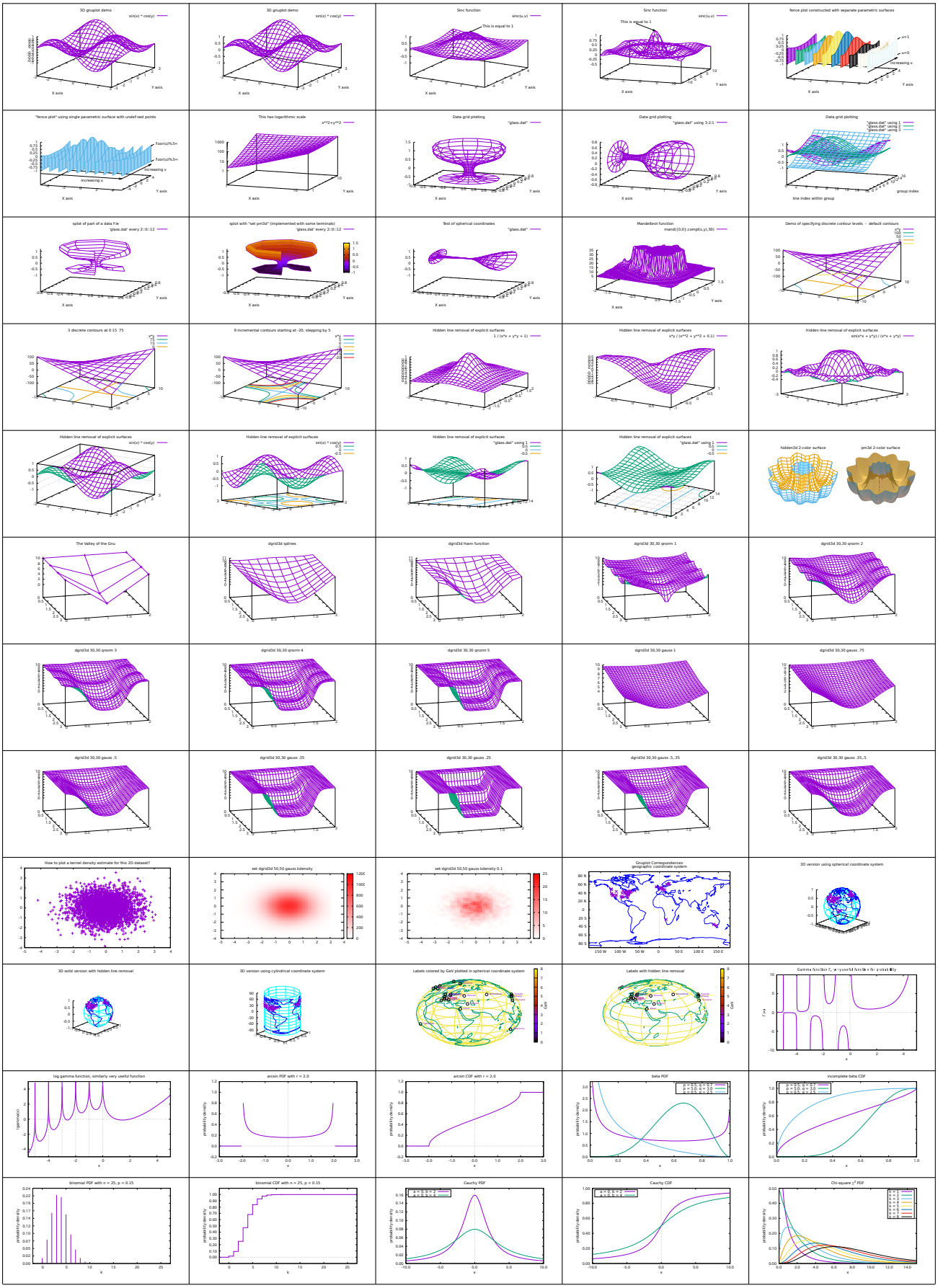
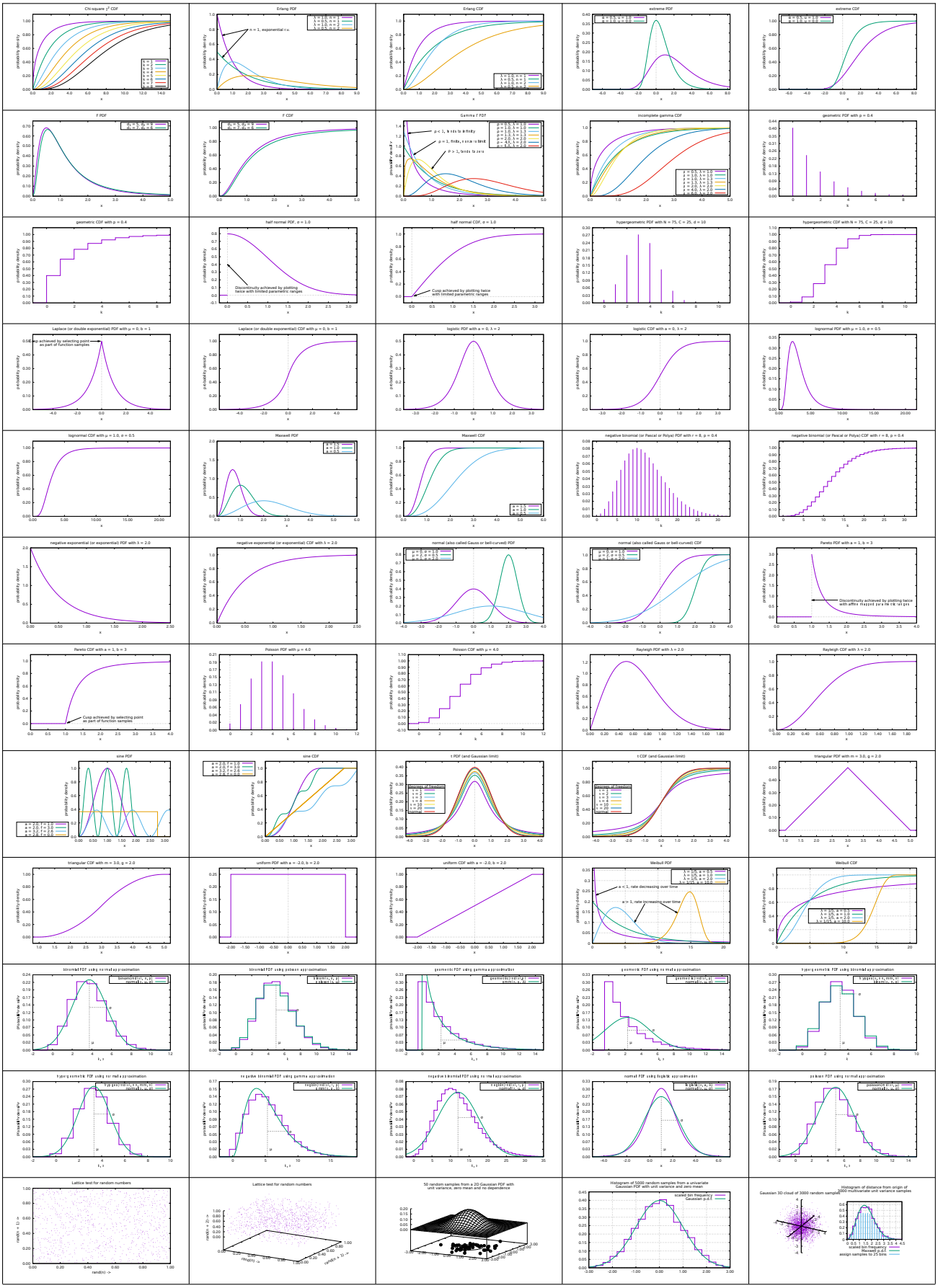
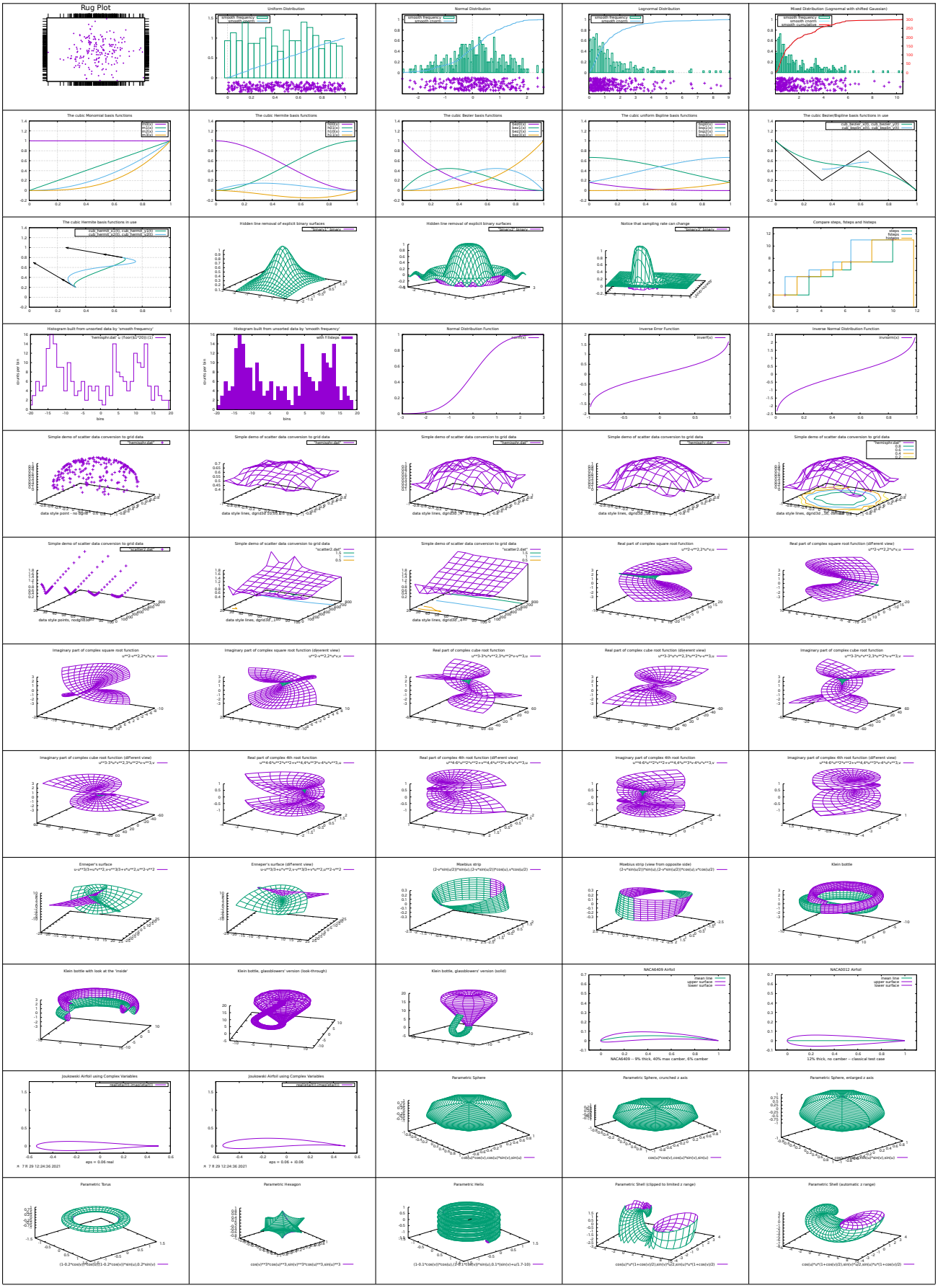

Simple Plots
Simple Plots
Simple Plots
Simple Plots
Simple Plots
Simple Plots
Simple Plots
Simple Plots
Mutual Characteristic of a Transistor
JFET Mutual Characteristic
Amplitude and Phase Frequency Response
Convex November 1-7 1989 Circadian
Convex November 1-7 1989
A demonstration of boxes with default properties
A demonstration of boxes with style fill solid 1.0
A demonstration of boxes with style fill solid border -1
Filled boxes of reduced width
Filled boxes at 50% fill density
A demonstration of boxes with style fill solid 0.25 noborder
A demonstration of boxes in mono with style fill pattern
plot with ydeltacurve [options]
Intersection of two parabolas
Filled sinus and cosinus curves
The red bat: abs(x) with ydeltacurve xy=2,5
Some sqrt stripes on filled graph background
Let's smile with parametric filled curves
world.dat plotted with filledcurves
Fill area between two curves
Fill area between two curves (pattern fill)
Fill area between two curves (above/below)
Fill area between two smoothed curves (above/below)
candlesticks with open boxes (default)
candlesticks with specified boxwidth
candlesticks with style fill solid
candlesticks showing both states of open/close
box-and-whisker plot adding median value as bar
box-and-whisker with median bar and whiskerbars
Autoscaling with constraints (y-axis always unaffected)
Autoscaling with constraints (x-axis always unaffected)
Autoscaling with constraints
Comparison of a binned histogram and a kernel density model of the same data
cubic spline f1 to data (no weights)
acsplines weighted by relative error
acsplines with increasing weight from error estimate
Same plot (various weighting) in log scale
Bezier curve rather than cubic spline
Bezier curve with log scale
3D smooth acsplines (special case with curve in single plane)
3D acsplines (general case)
Monotonic cubic splines
Monotonic cubic splines (log-scale data)
Along-path spline f1 to multiple sets of points
Along-path spline f1 to multiple sets of points
error represented by xyerrorbars
error represented by boxxyerror
error represented by xerrorbars
error represented by yerrorbars
yerrorbars in log scale
xyerrorbars in log scale

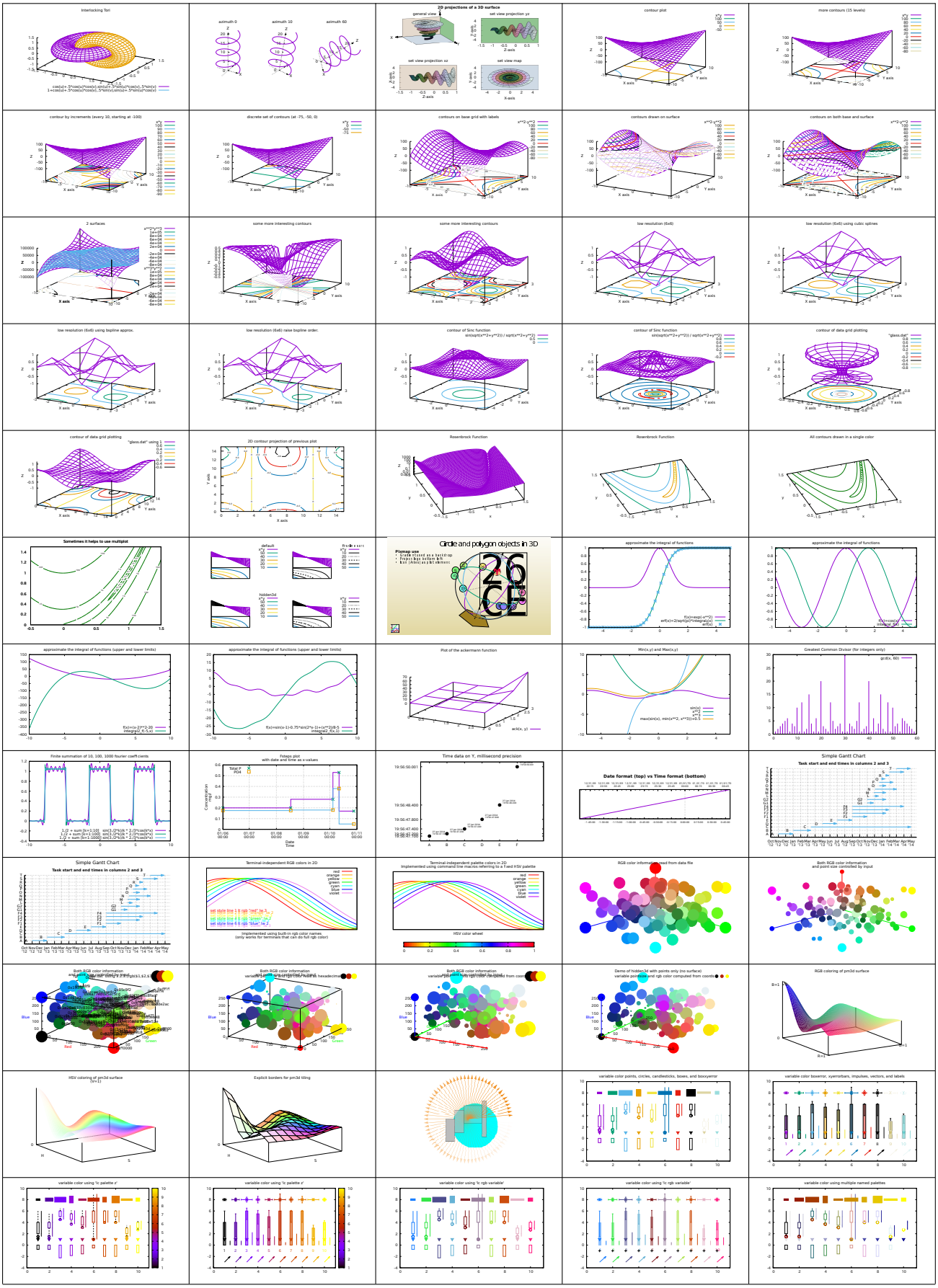

yerrorbars with no crossbar
Power
Theory
Power (W)
Resistance [Ohm]
xerrorbars with no crossbar
yerrorbars with no crossbar
Error on y represented by filledcurve shaded region
Shaded error region
Monotonic spline through data
Rate
Time (sec)
splot with zerrorfill
(note that plot ordering must be back-to-front)
fence plot constructed with zerrorfill
X axis
Y axis
data set and initial parameters
Density (g/cm^3)
Temperature T (°C)
'icdemo.dat'
f(x)
unweighted fit
data with experimental weights
'icdemo.dat' using 1:2:5
fit weighted by experimental weights
initial parameters for realistic model function
density(x)
fitted to realistic model function
'icdemo.dat' using 1:2:3
the scattered points, and the initial parameter
'hemisphr.dat' using 1:2:3
f(x,y)
the scattered points, fitted curve
sound data, and model with initial parameters
'soundvel.dat'
vlong(x)
vtrans(x)
pseudo-3d multi-branch fit to velocity data
fitted only every 5th data point
initial parameters
fit with c44 and c13 fixed
data and initial parameters
Reflectivity
Delta (degrees)
'mol3.dat'
R(x)
fitted parameters
data and initial parameters
fit to data with t = -3
fit to data with t= +2, initial parameters
fit to data with t = +3
data for all fits, initial parameters
fit to all data
'fit3.dat' in 0 u 1:2:4
'fit3.dat' in 1 u 1:2:4
'fit3.dat' in 2 u 1:2:4
Pearson's data and York's weights
original data and the initial function
data
initial function
fit using xs error terms
Pearson's data and York's weights
function fit with yerror keyword
fit using only ey
fit using ex and ey
fit with no errors
Plot a function of a named variable
f(gamma)
gamma
Parametric Conic Sections
Decouple range of parametric axes obs
from that of display axes xy|z
Piecewise function sampling
Piecewise approximation to the
Normal Cumulative Distribution Function
plot norm(x), [0:1] part1(x), [1:4] part2(x)
Piecewise function of one parameter in 3D
Three circles (with aspect ratio distortion)
Butterfly
bounding radius 2.5
Primitive Smith Chart
Impedance or Admittance Coordinates
Antenna Pattern
dBm W
Azimuth
log scale polar axis, trange in degrees
yerrors in polar mode
polar error bars
Polar Quadrants
Orbits of selected Solar System objects
Planets
Minor planets
Comets
Distant objects

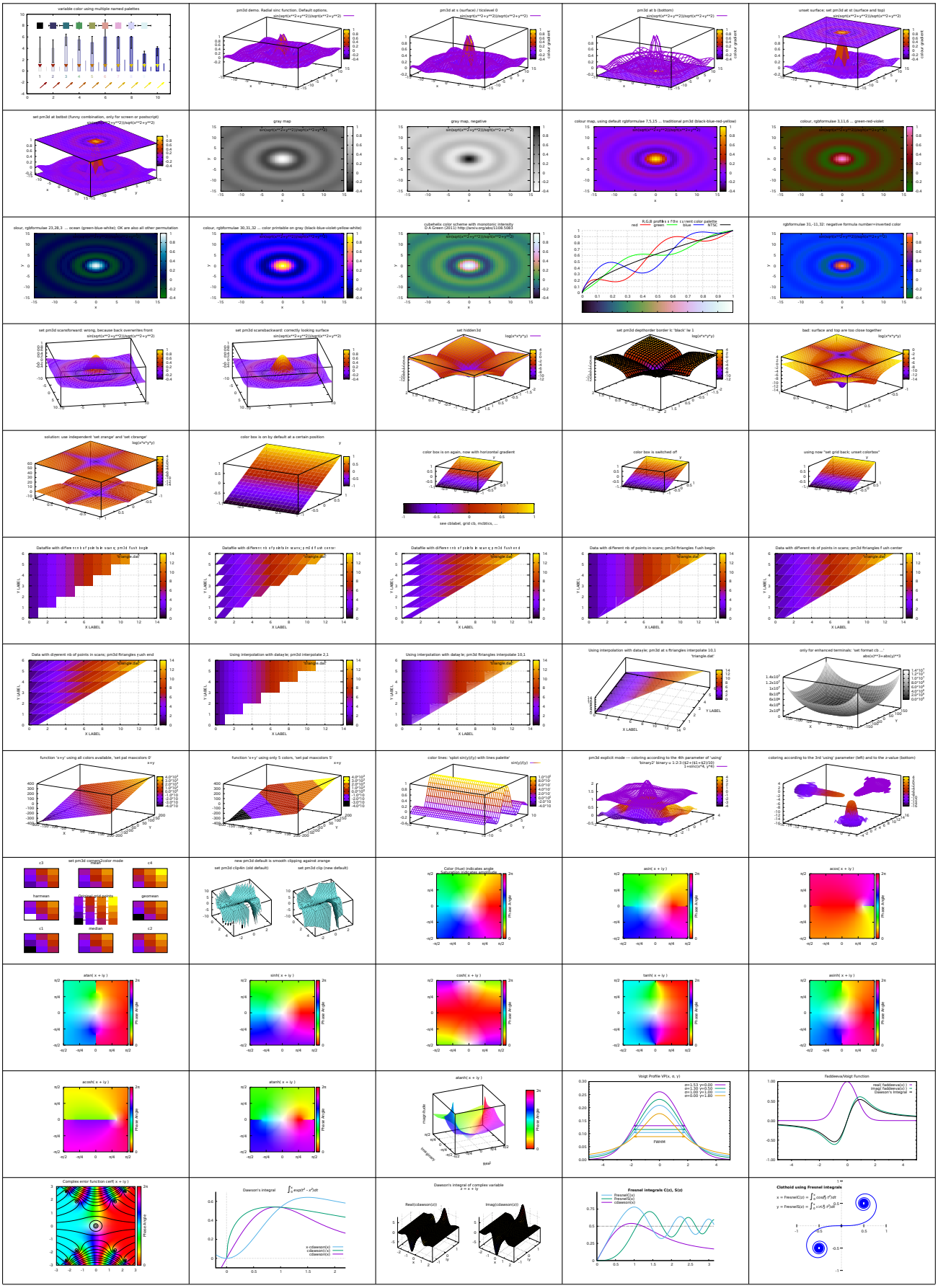


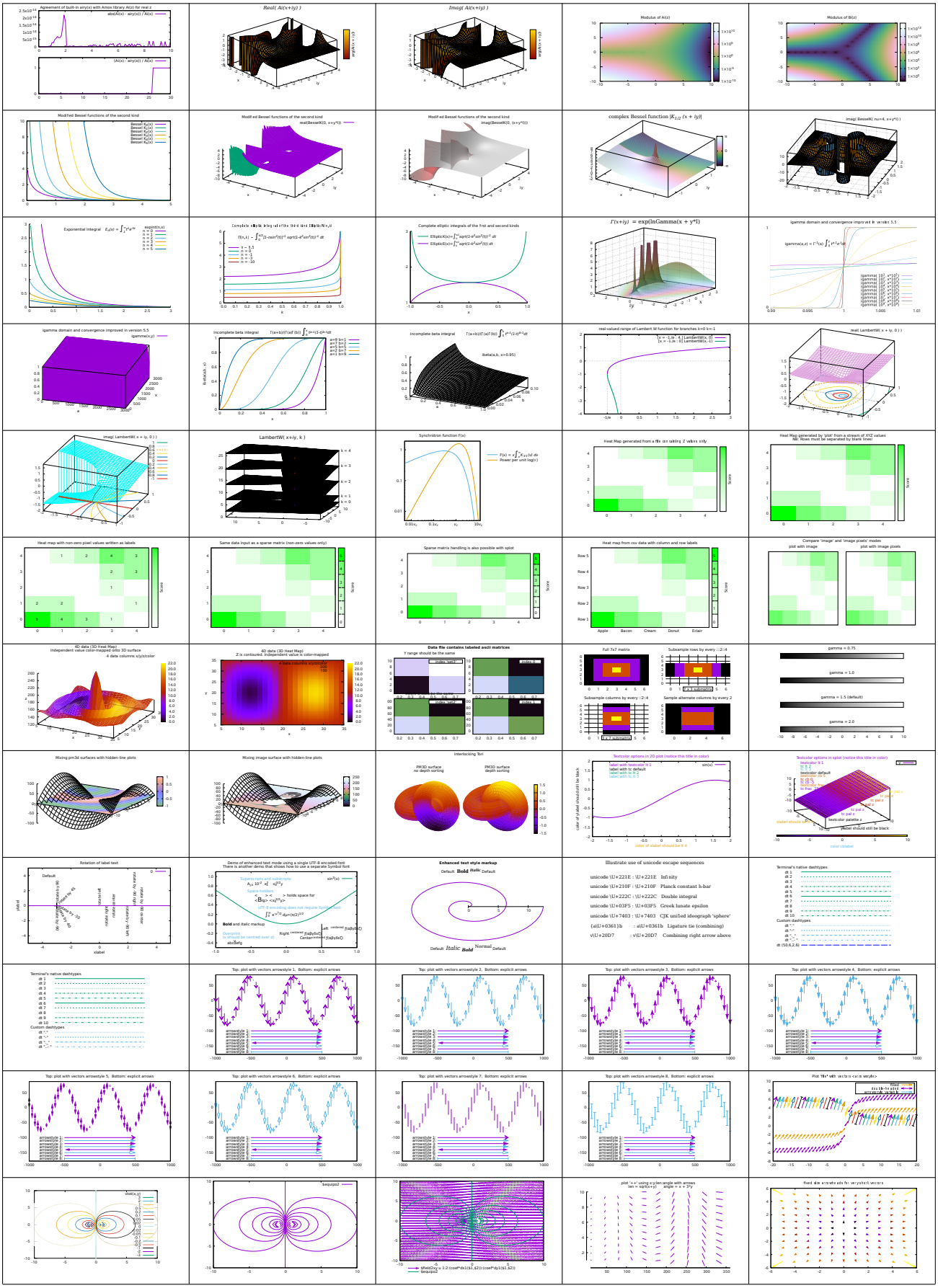

3D gnuplot demo
sin(x) * cos(y)
X axis
Y axis
3D gnuplot demo
sin(x) * cos(y)
X axis
Y axis
Sinc function
sinc(u,v)
This is equal to 1
X axis
Y axis
Sinc function
sinc(u,v)
This is equal to 1
X axis
Y axis
fence plot constructed with separate parametric surfaces
u=1
u=0
increasing v
X axis
Y axis
"fence plot" using single parametric surface with undefined points
increasing u
increasing v
X axis
Y axis
This has logarithmic scale
x**2+y**2
X axis
Y axis
Data grid plotting
"glass.dat"
X axis
Y axis
Data grid plotting
"glass.dat" using 3:2:1
X axis
Y axis
Data grid plotting
"glass.dat" using 1
"glass.dat" using 2
"glass.dat" using 3
line index within group
group index
splot of part of a data file
'glass.dat' every 2::0::12
X axis
Y axis
splot with "set pm3d" (implemented with some terminals)
'glass.dat' every 2::0::12
X axis
Y axis
Test of spherical coordinates
"glass.dat"
X axis
Y axis
Mandelbrot function
mandl{0,0},.compl(x,y),30)
X axis
Y axis
Demo of specifying discrete contour levels - default contours
X axis
Y axis
3 discrete contours at 0 15 75
x*y
X axis
Y axis
9 incremental contours starting at -20, stepping by 5
x*y
X axis
Y axis
Hidden line removal of explicit surfaces
1 / (x*x + y*y + 1)
Hidden line removal of explicit surfaces
x*y / (x**2 + y**2 + 0.1)
Hidden line removal of explicit surfaces
sin(x*x + y*y) / (x*x + y*y)
Hidden line removal of explicit surfaces
sin(x) * cos(y)
Hidden line removal of explicit surfaces
sin(x) * cos(y)
Hidden line removal of explicit surfaces
"glass.dat" using 1
Hidden line removal of explicit surfaces
"glass.dat" using 1
hidden3d 2-color surface
pm3d 2-color surface
The Valley of the Gnu
dgrid3d splines
dgrid3d Hann function
dgrid3d 30,30 qnorm 1
dgrid3d 30,30 qnorm 2
dgrid3d 30,30 qnorm 3
dgrid3d 30,30 qnorm 4
dgrid3d 30,30 qnorm 5
dgrid3d 30,30 gauss 1
dgrid3d 30,30 gauss .75
dgrid3d 30,30 gauss .5
dgrid3d 30,30 gauss .35
dgrid3d 30,30 gauss .25
dgrid3d 30,30 gauss .5,.35
dgrid3d 30,30 gauss .35,.5
How to plot a kernel density estimate for this 2D dataset?
set dgrid3d 50,50 gauss kdensity
set dgrid3d 50,50 gauss kdensity 0.1
Gnuplot Correspondences
geographic coordinate system
3D version using spherical coordinate system
3D solid version with hidden line removal
3D version using cylindrical coordinate system
Labels colored by GeV plotted in spherical coordinate system
Labels with hidden line removal
log gamma function, similarly very useful function
arcsin PDF with r = 2.0
arcsin CDF with r = 2.0
beta PDF
incomplete beta CDF
binomial PDF with n = 25, p = 0.15
binomial CDF with n = 25, p = 0.15
Cauchy PDF
Cauchy CDF
Chi-square χ² PDF

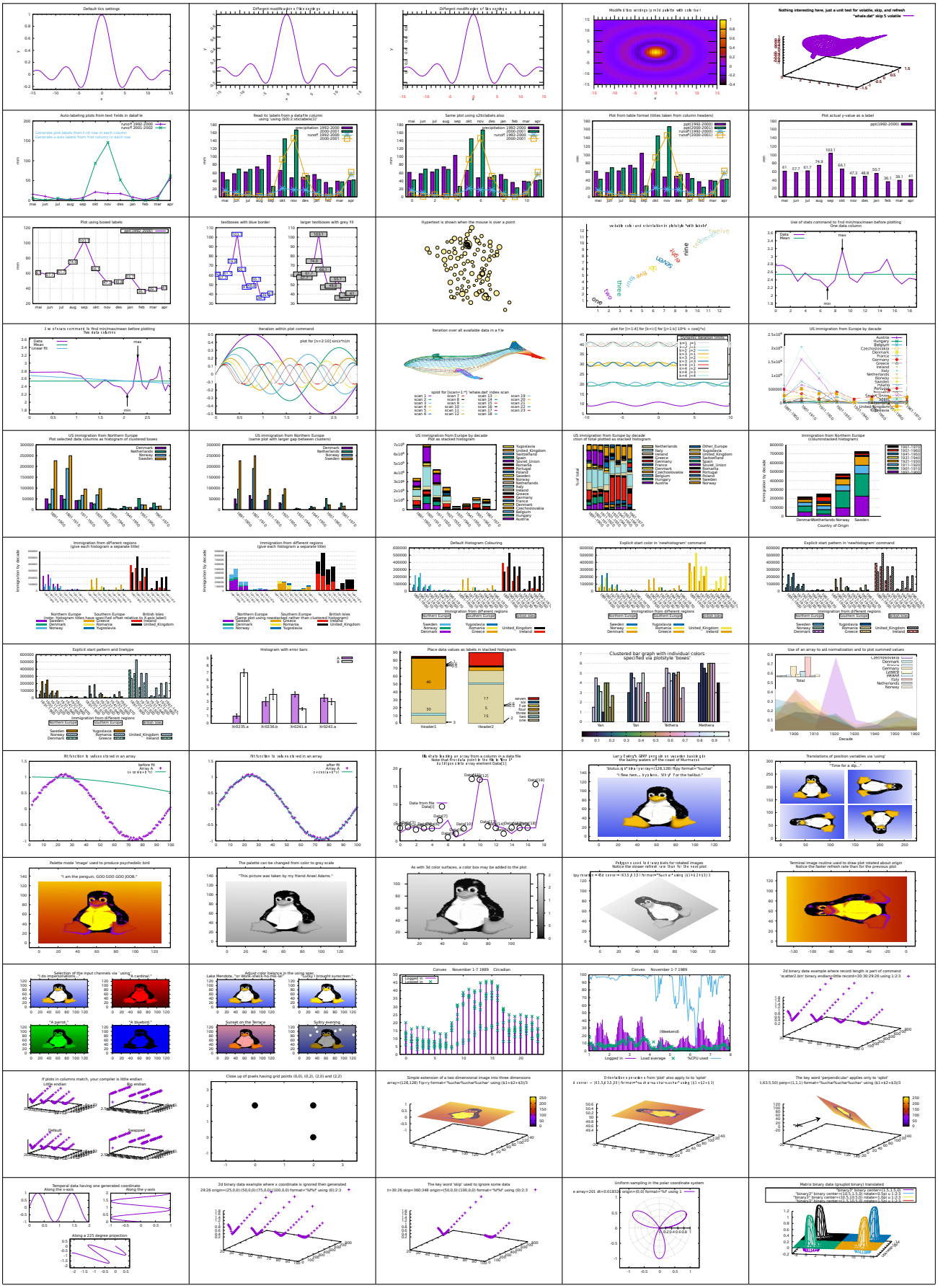

Chi-square χ^2 CDF
Erlang PDF
Erlang CDF
extreme PDF
extreme CDF
F PDF
F CDF
Gamma Γ PDF
incomplete gamma CDF
geometric PDF with p = 0.4
geometric CDF with p = 0.4
half normal PDF, σ = 1.0
half normal CDF, σ = 1.0
hypergeometric PDF with N = 75, C = 25, d = 10
hypergeometric CDF with N = 75, C = 25, d = 10
Laplace (or double exponential) PDF with μ = 0, b = 1
Laplace (or double exponential) CDF with μ = 0, b = 1
logistic PDF with a = 0, λ = 2
logistic CDF with a = 0, λ = 2
lognormal PDF with μ = 1.0, σ = 0.5
lognormal CDF with μ = 1.0, σ = 0.5
Maxwell PDF
Maxwell CDF
negative binomial (or Pascal or Polya) PDF with r = 8, p = 0.4
negative binomial (or Pascal or Polya) CDF with r = 8, p = 0.4
negative exponential (or exponential) PDF with λ = 2.0
negative exponential (or exponential) CDF with λ = 2.0
normal (also called Gauss or bell-curved) PDF
normal (also called Gauss or bell-curved) CDF
Pareto PDF with a = 1, b = 3
Pareto CDF with a = 1, b = 3
Poisson PDF with μ = 4.0
Poisson CDF with μ = 4.0
Rayleigh PDF with λ = 2.0
Rayleigh CDF with λ = 2.0
sine PDF
sine CDF
t PDF (and Gaussian limit)
t CDF (and Gaussian limit)
triangular PDF with m = 3.0, g = 2.0
triangular CDF with m = 3.0, g = 2.0
uniform PDF with a = -2.0, b = 2.0
uniform CDF with a = -2.0, b = 2.0
Weibull PDF
Weibull CDF
binomial PDF using normal approximation
binomial PDF using poisson approximation
geometric PDF using gamma approximation
geometric PDF using normal approximation
hypergeometric PDF using binomial approximation
hypergeometric PDF using normal approximation
negative binomial PDF using gamma approximation
negative binomial PDF using normal approximation
normal PDF using logistic approximation
poisson PDF using normal approximation
Lattice test for random numbers
Lattice test for random numbers
50 random samples from a 2D Gaussian PDF with unit variance, zero mean and no dependence
Histogram of 5000 random samples from a univariate Gaussian PDF with unit variance and zero mean
Histogram of distance from origin of 3000 multivariate unit variance samples

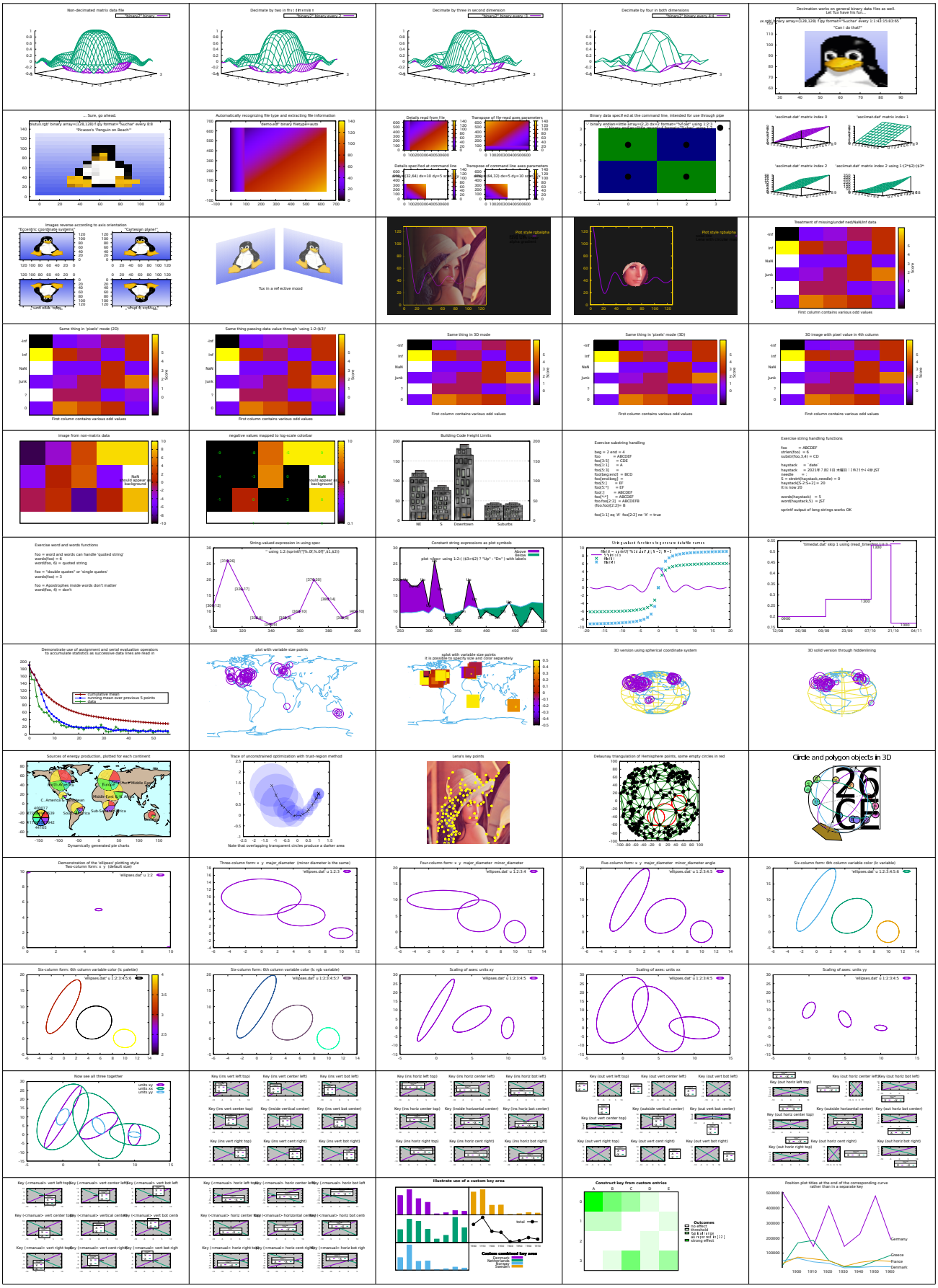

Rug Plot
Uniform Distribution
Normal Distribution
Lognormal Distribution
Mixed Distribution (Lognormal with shifted Gaussian)
The cubic Monomial basis functions
The cubic Hermite basis functions
The cubic Bezier basis functions
The cubic uniform Bspline basis functions
The cubic Bezier/Bspline basis functions in use
The cubic Hermite basis functions in use
Hidden line removal of explicit binary surfaces
Hidden line removal of explicit binary surfaces
Notice that sampling rate can change
Compare steps, fsteps and histeps
Histogram built from unsorted data by 'smooth frequency'
Histogram built from unsorted data by 'smooth frequency'
Normal Distribution Function
Inverse Error Function
Inverse Normal Distribution Function
Simple demo of scatter data conversion to grid data
Simple demo of scatter data conversion to grid data
Simple demo of scatter data conversion to grid data
Simple demo of scatter data conversion to grid data
Simple demo of scatter data conversion to grid data
Simple demo of scatter data conversion to grid data
Simple demo of scatter data conversion to grid data
Simple demo of scatter data conversion to grid data
Real part of complex square root function
Real part of complex square root function (different view)
Imaginary part of complex square root function
Imaginary part of complex square root function (different view)
Real part of complex cube root function
Real part of complex cube root function (different view)
Imaginary part of complex cube root function
Imaginary part of complex cube root function (different view)
Real part of complex 4th root function
Real part of complex 4th root function (different view)
Imaginary part of complex 4th root function
Imaginary part of complex 4th root function (different view)
Enneper's surface
Enneper's surface (different view)
Moebius strip
Moebius strip (view from opposite side)
Klein bottle
Klein bottle with look at the 'inside'
Klein bottle, glassblowers' version (look-through)
Klein bottle, glassblowers' version (solid)
NACA6409 Airfoil
NACA0012 Airfoil
Joukowski Airfoil using Complex Variables
Joukowski Airfoil using Complex Variables
Parametric Sphere
Parametric Sphere, crunched z axis
Parametric Sphere, enlarged z axis
Parametric Torus
Parametric Hexagon
Parametric Helix
Parametric Shell (clipped to limited z range)
Parametric Shell (automatic z range)

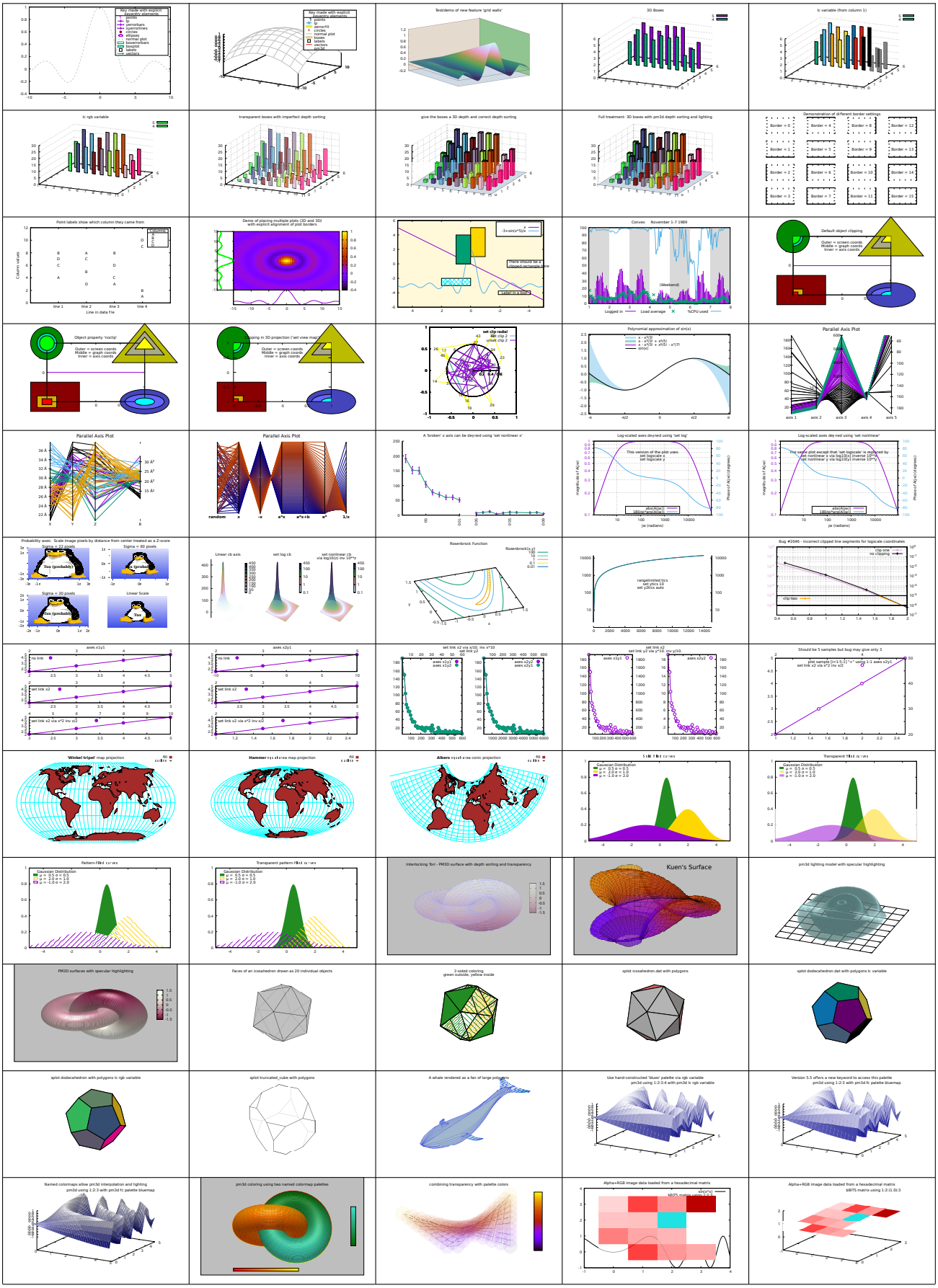

Interlocking Tori
2D projections of a 3D surface
contour plot
more contours (15 levels)
contour by increments (every 10, starting at -100)
discrete set of contours (at -75, -50, 0)
contours on base grid with labels
contours drawn on surface
contours on both base and surface
2 surfaces
some more interesting contours
low resolution (6x6)
low resolution (6x6) using cubic splines
low resolution (6x6) using bspline approx.
low resolution (6x6) raise bspline order.
contour of Sinc function
contour of data grid plotting
2D contour projection of previous plot
Rosenbrock Function
All contours drawn in a single color
Sometimes it helps to use multiplot
Circle and polygon objects in 3D
approximate the integral of functions
approximate the integral of functions (upper and lower limits)
Plot of the ackermann function
Min(x,y) and Max(x,y)
Greatest Common Divisor (for integers only)
Finite summation of 10, 100, 1000 fourier coefficients
Fstepps plot with date and time as x-values
Time data on Y, millisecond precision
Simple Gantt Chart
Terminal-independent RGB colors in 2D
Terminal-independent palette colors in 2D
RGB color information read from data file
Both RGB color information and point size controlled by input
RGB coloring of pm3d surface
HSV coloring of pm3d surface
Explicit borders for pm3d tiling
variable color points, circles, candlesticks, boxes, and boxyerror
variable color boxerror, xyerrorbars, impulses, vectors, and labels
variable color using 'lc palette z'
variable color using 'lc rgb variable'
variable color using multiple named palettes

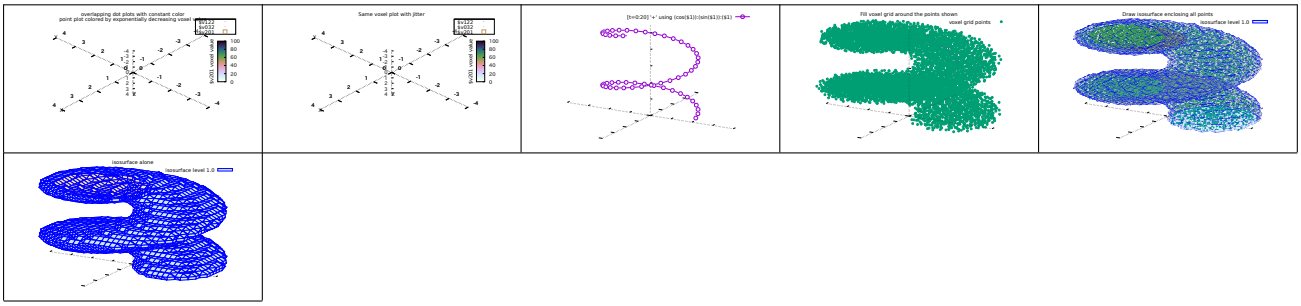

variable color using multiple named palettes
pm3d demo. Radial sinc function. Default options.
pm3d at s (surface) / tics/level 0
pm3d at b (bottom)
unset surface; set pm3d at st (surface and top)
set pm3d at bet bet (funny combination, only for screen or postscript)
gray map
gray map, negative
colour map, using default rgbformulae 7,5,15 ... traditional pm3d (black-blue-red-yellow)
colour, rgbformulae 3,11,6 ... green-red-violet
colour, rgbformulae 23,28,3 ... ocean (green-blue-white); OK are also all other permutation
colour, rgbformulae 30,31,32 ... color printable on gray (black-blue-violet-yellow-white)
cubehelix color scheme with monotonic intensity
D A Green (2011) http://adsabs.harvard.edu/abs/2011BASI...39..289G
R,G,B profiles of the current color palette
red
green
blue
NTSC
rgbformulae 31,-11,32: negative formula number=inverted color
set pm3d scansforward: wrong, because back overwrites front
set pm3d scansbackward: correctly looking surface
set hidden3d
set pm3d depthorder border lc 'black' lw 1
bad: surface and top are too close together
solution: use independent 'set zrange' and 'set cbrange'
color box is on by default at a certain position
color box is on again, now with horizontal gradient
see cblabel, grid cb, mcbtics, ...
color box is switched off
using now "set grid back; unset colorbox"
Datafile with differences of possible scans; pm3d flush begin
Datafile with differences of possible scans; pm3d flush center
Datafile with differences of possible scans; pm3d flush end
Data with different nb of points in scans; pm3d flush begin
Data with different nb of points in scans; pm3d flush center
Data with diyerent nb of points in scans; pm3d flush end
Using interpolation with datagle; pm3d interpolate 2,1
Using interpolation with dataglie; pm3d flriangles interpolate 10,1
Using interpolation with dataglie; pm3d at s flriangles interpolate 10,1
only for enhanced terminals: 'set format cb ...'
function 'x+y' using all colors available, 'set pal maxcolors 0'
function 'x+y' using only 5 colors, 'set pal maxcolors 5'
color lines: 'splot sin(y)/(y)) with lines palette'
pm3d explicit mode — coloring according to the 4th parameter of 'using'
coloring according to the 3rd 'using' parameter (left) and to the z-value (bottom)
set pm3d corners2color mode
new pm3d default is smooth clipping against orange
set pm3d clip4in (old default)
set pm3d clip (new default)
Color (Hue) indicates angle
Saturation indicates amplitude
asin(x + iy)
acosl x + iy)
atanl x + iy)
sinh(x + iy)
cosh(x + iy)
tanh(x + iy)
asinh(x + iy)
acosh(x + iy)
atanh(x + iy)
Voigt Profile V(x; σ, γ)
FWHM
Faddeeva/Voigt Function
Complex error function cerf(x + iy)
Dawson's integral
Dawson's integral of complex variable
z = x + iy
Real(cdawson(z))
Imag(cdawson(z))
Fresnel integrals C(z), S(z)
Clothoid using Fresnel integrals










overlapping dot plots with constant color
point plot colored by exponentially decreasing voxel
Same voxel plot with jitter
Fill voxel grid around the points shown
voxel grid points
Draw isosurface enclosing all points
isosurface level 1.0
isosurface alone
isosurface level 1.0