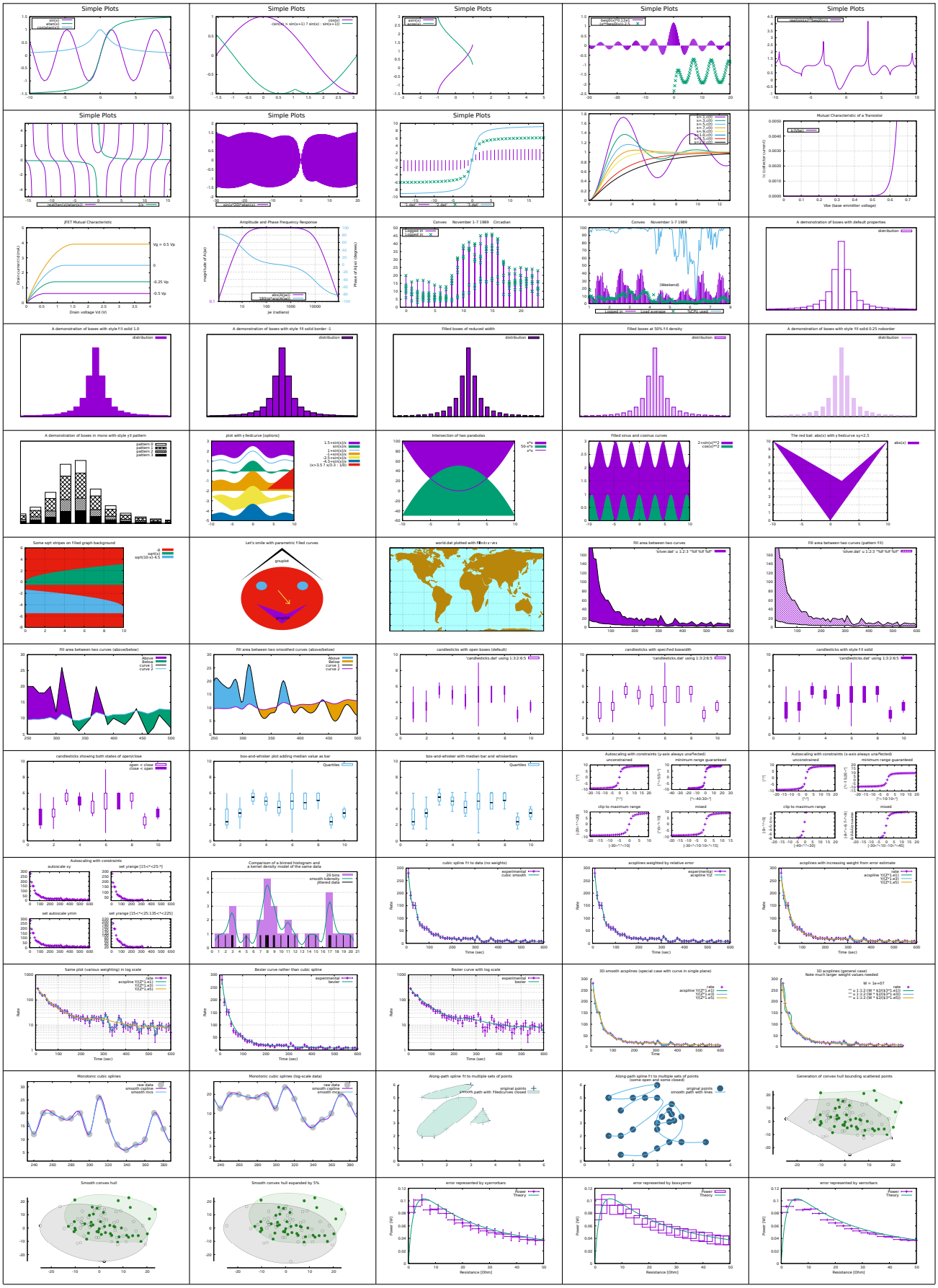
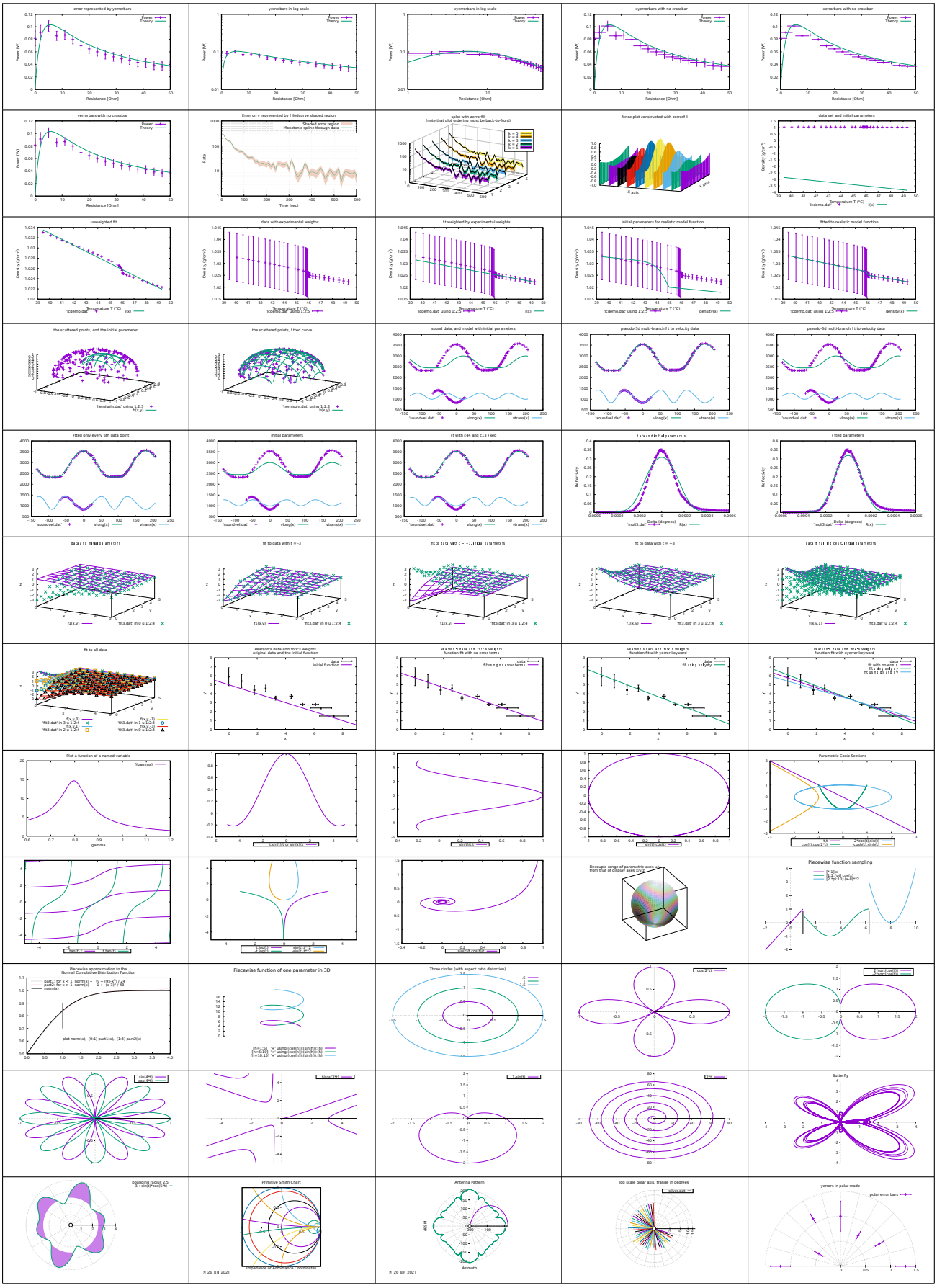
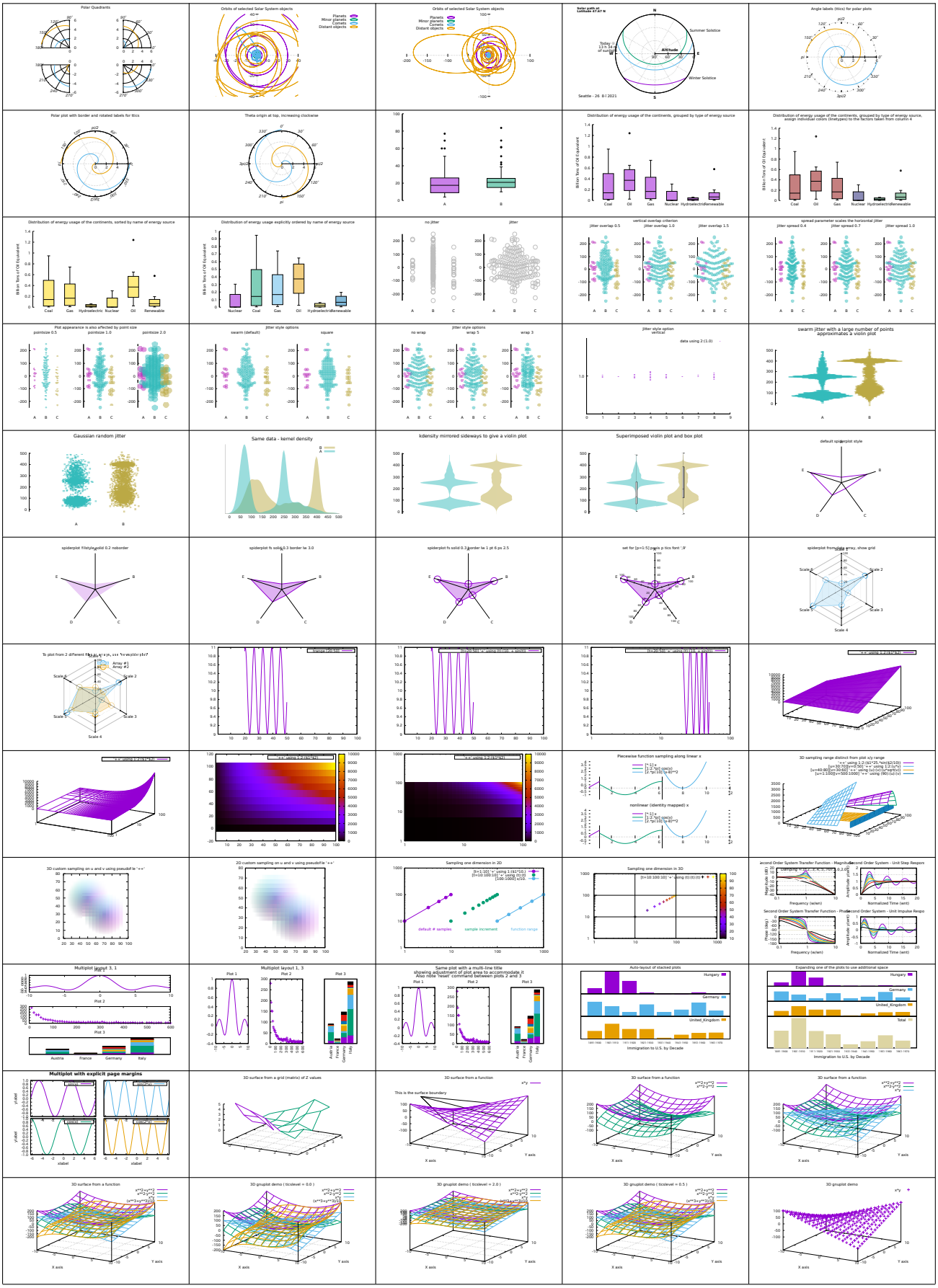
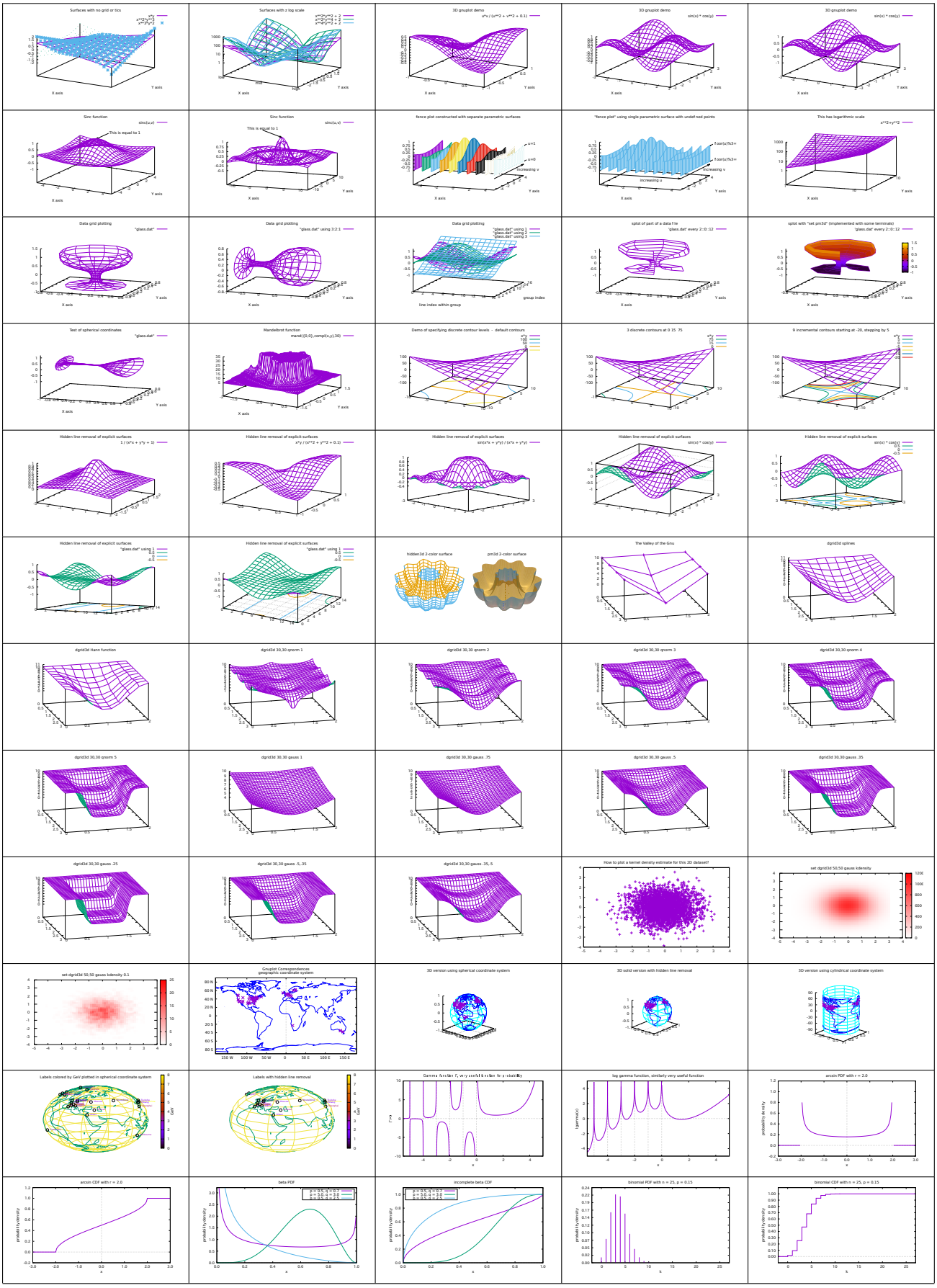
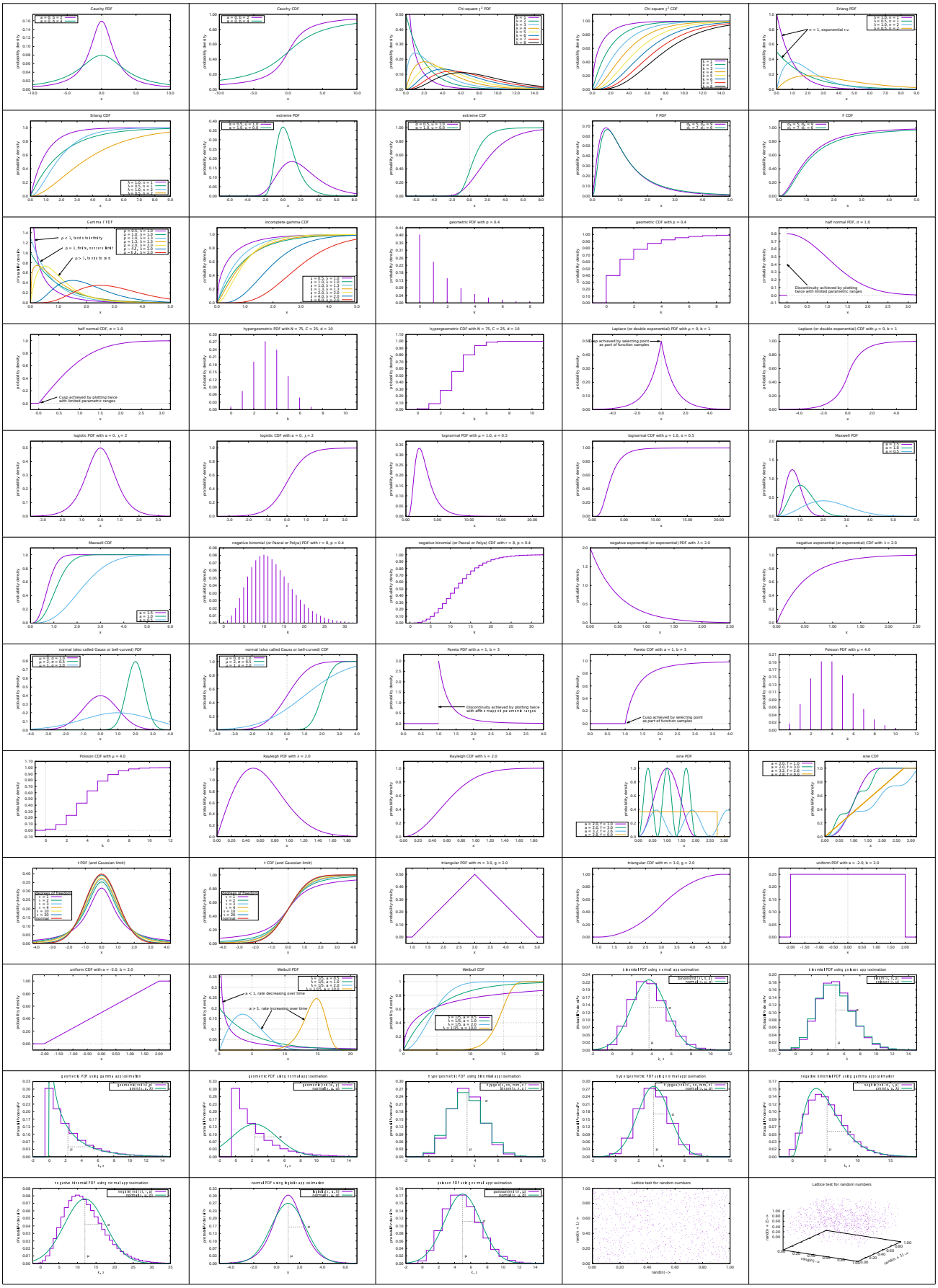
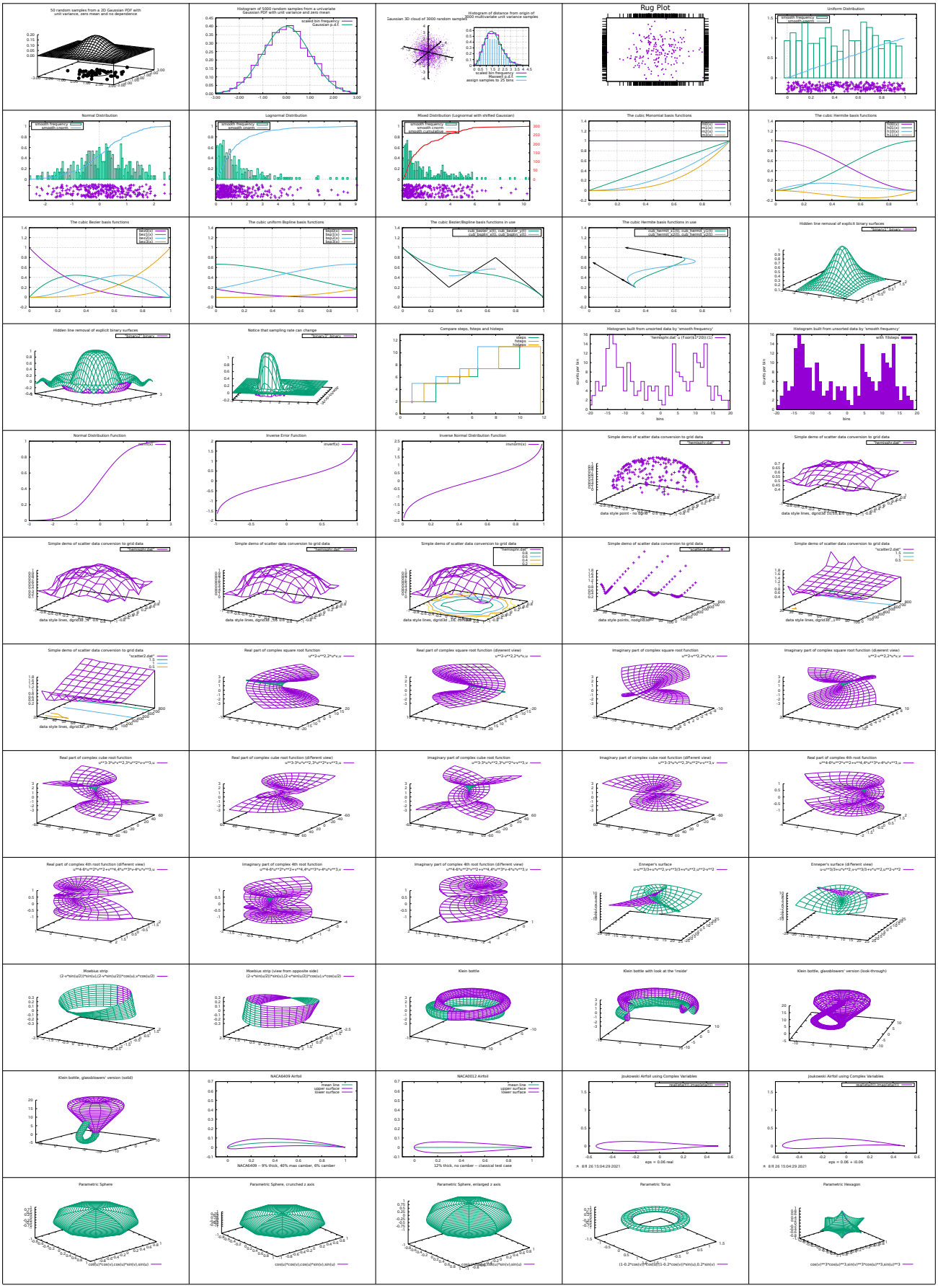

Simple Plots
Simple Plots
Simple Plots
Simple Plots
Simple Plots
Simple Plots
Simple Plots
Simple Plots
Mutual Characteristic of a Transistor
JFET Mutual Characteristic
Amplitude and Phase Frequency Response
Convex November 1-7 1989 Circadian
Convex November 1-7 1989
A demonstration of boxes with default 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 lp fsdcurve [options]
Intersection of two parabolas
Filled sinus and cosinus curves
The red bat: abs(x) with lp fsdcurve xy=2,5
Some sqrt stripes on f filed graph background
Let's smile with parametric fi lled 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 f ill 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 (x-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
Generation of convex hull bounding scattered points
Smooth convex hull
Smooth convex hull expanded by 5%
error represented by xyerrorbars
error represented by boxyerror
error represented by xerrorbars

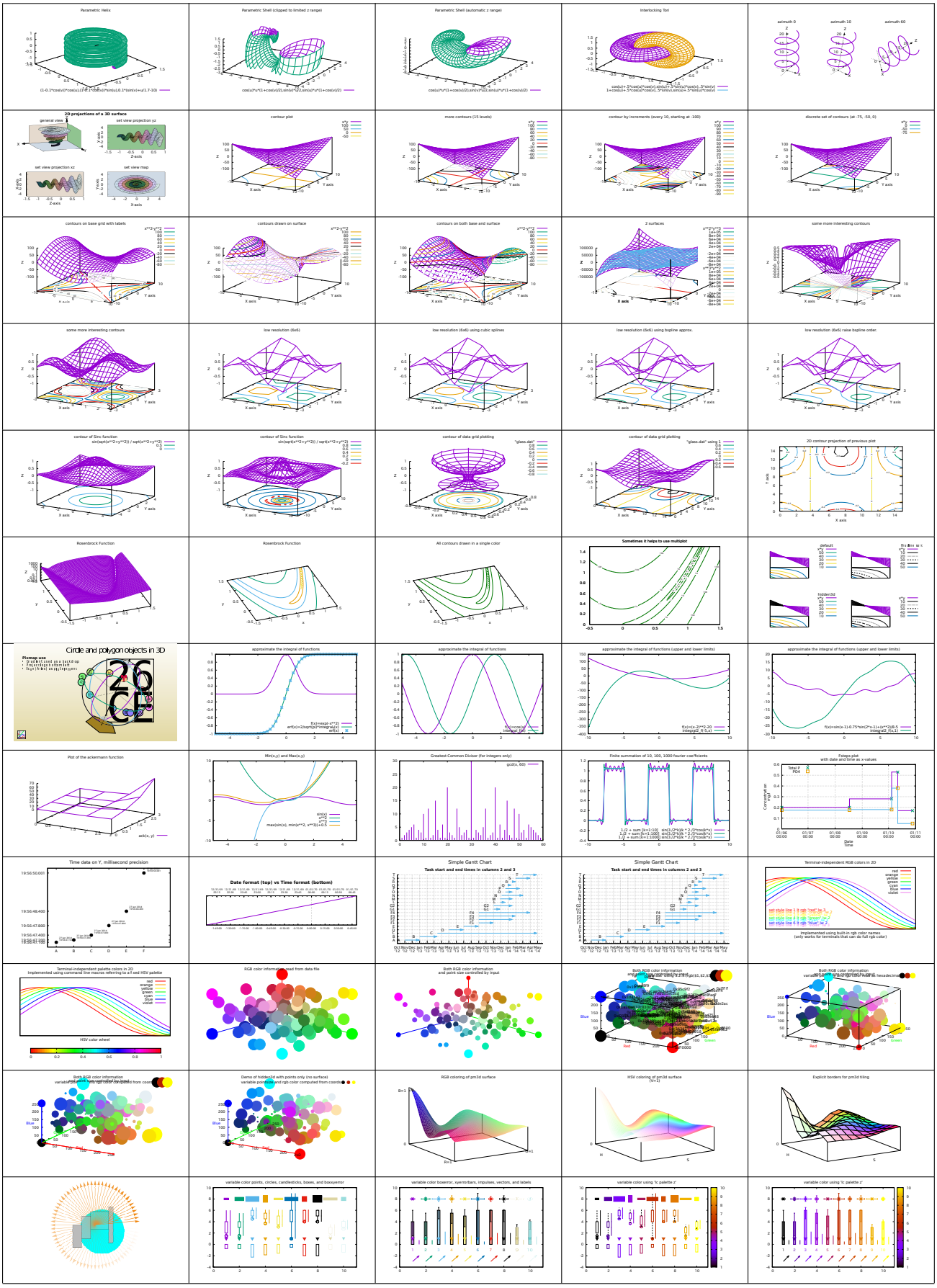

error represented by yerrorbars
yerrorbars in log scale
xyerrorbars in log scale
xyerrorbars with no crossbar
xerrorbars with no crossbar
yerrorbars with no crossbar
Error on y represented by filledcurve shaded region
splot with zerrorfill
fence plot constructed with zerrorfill
data set and initial parameters
unweighted fit
data with experimental weights
fit weighted by experimental weights
initial parameters for realistic model function
fitted to realistic model function
the scattered points, and the initial parameter
the scattered points, fitted curve
sound data, and model with initial parameters
pseudo-3d multi-branch fit to velocity data
pseudo-3d multi-branch fit to velocity data
plotted only every 5th data point
initial parameters
fit with c44 and c13 fixed
data and initial parameters
plotted parameters
data and initial parameters
fit to data with t = -3
fit to data with t = +3, initial parameters
fit to data with t = +3
data for all indices t, initial parameters
fit to all data
Pearson's data and York's weights
original data and the initial function
Pearson's data and York's weights
function fit with no errorbars
Pearson's data and York's weights
function fit with yerror keyword
Pearson's data and York's weights
function fit with xyerror keyword
Plot a function of a named variable
Parametric Conic Sections
Decouple range of parametric axes up
from that of display axes xyrange
Piecewise function sampling
Piecewise approximation to the
Normal Cumulative Distribution Function
Piecewise function of one parameter in 3D
Three circles (with aspect ratio distortion)
Butterfly
bounding radius 2.5
3.+sin(t)*cos(5*t)
Primitive Smith Chart
Antenna Pattern
log scale polar axis, trange in degrees
yerrors in polar mode

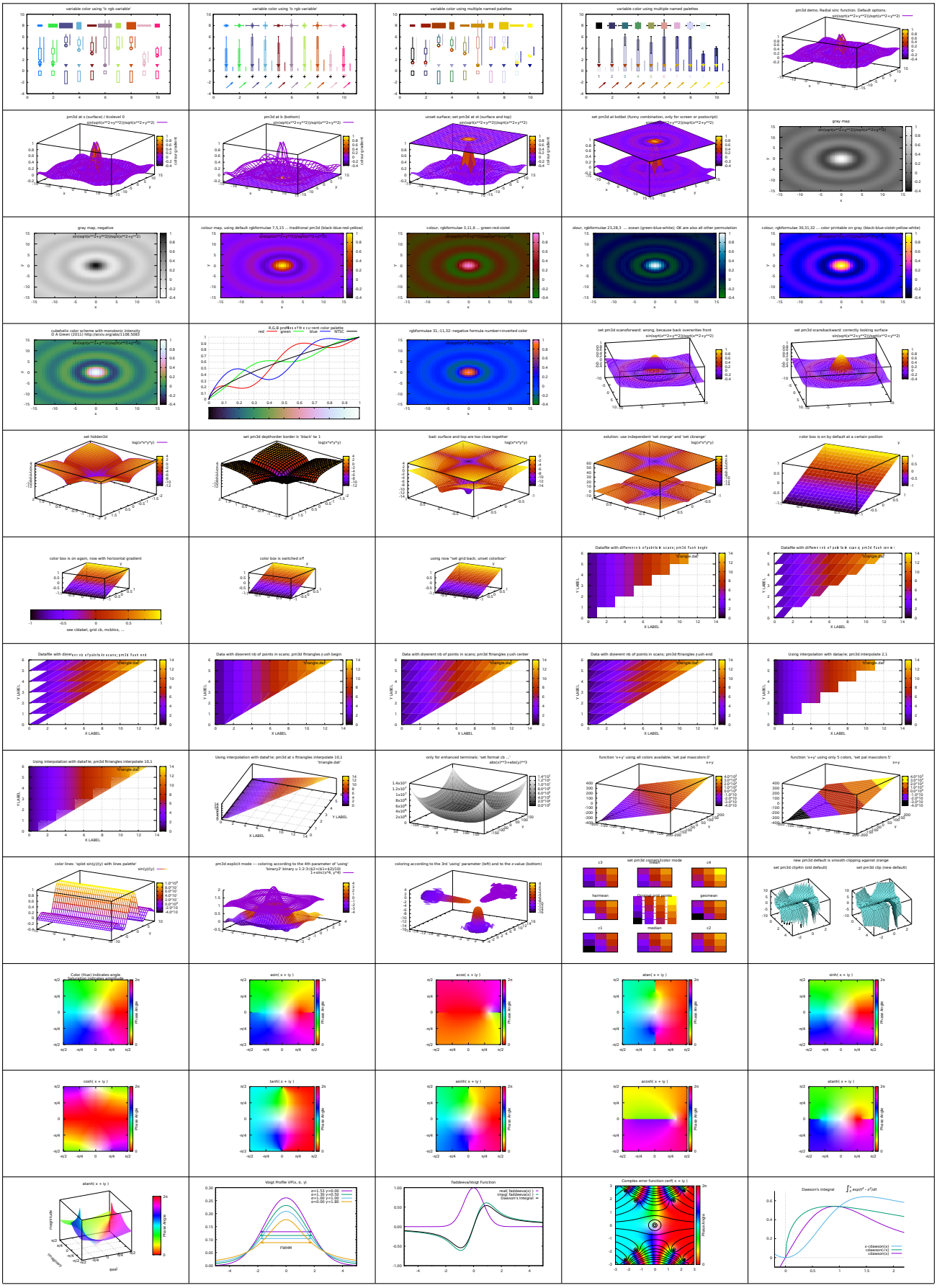


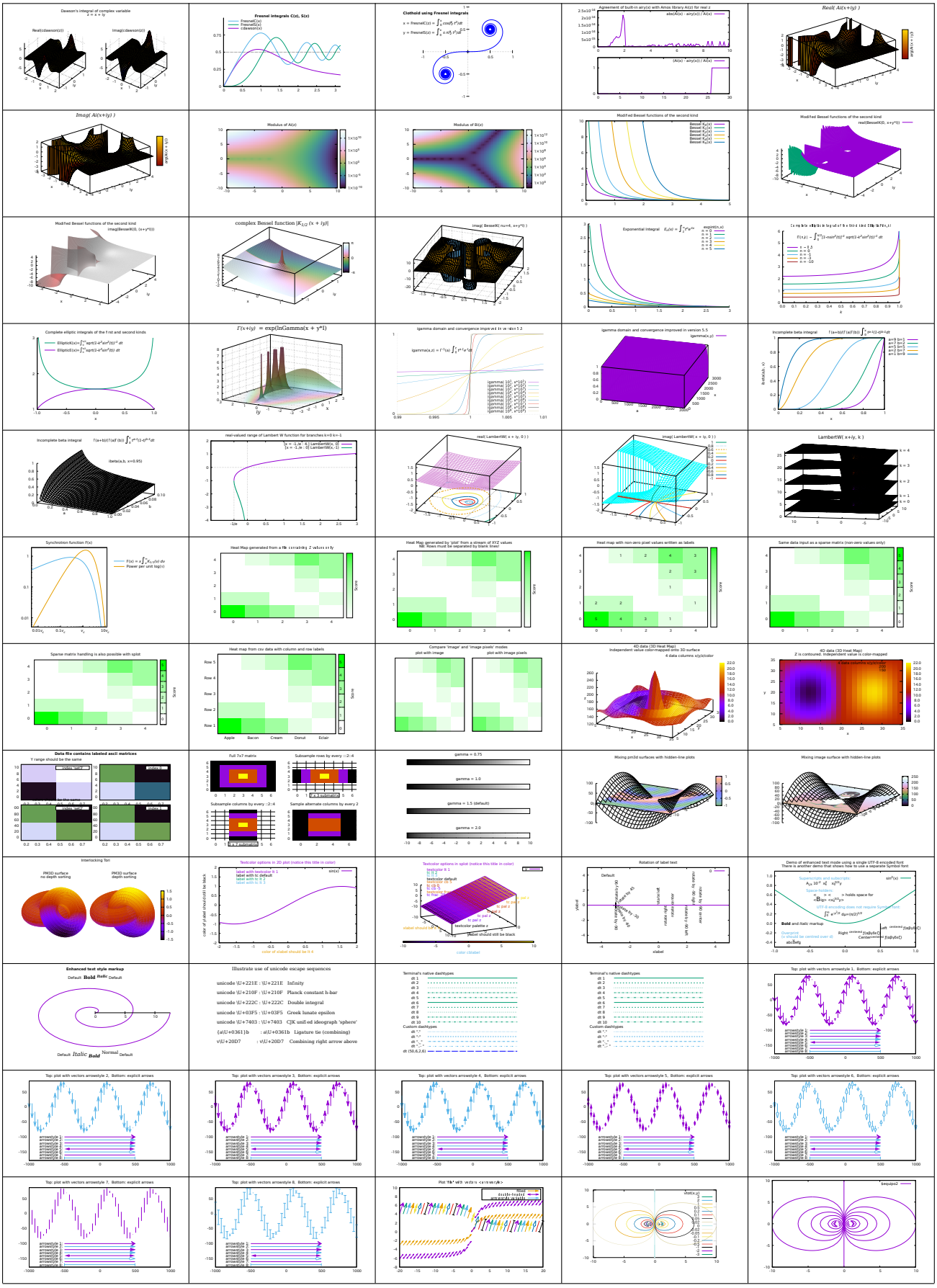

Surfaces with no grid or tics
Surfaces with z log scale
3D gnuplot demo
3D gnuplot demo
3D gnuplot demo
Sinc function
Sinc function
fence plot constructed with separate parametric surfaces
"fence plot" using single parametric surface with undefined points
This has logarithmic scale
Data grid plotting
Data grid plotting
Data grid plotting
splot of part of a data file
splot with "set pm3d" (implemented with some terminals)
Test of spherical coordinates
Mandelbrot function
Demo of specifying discrete contour levels - default contours
3 discrete contours at 0 15 75
9 incremental contours starting at -20, stepping by 5
Hidden line removal of explicit surfaces
Hidden line removal of explicit surfaces
Hidden line removal of explicit surfaces
Hidden line removal of explicit surfaces
Hidden line removal of explicit surfaces
Hidden line removal of explicit surfaces
Hidden line removal of explicit surfaces
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
Gamma function Γ, very useful in statistics for probability
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

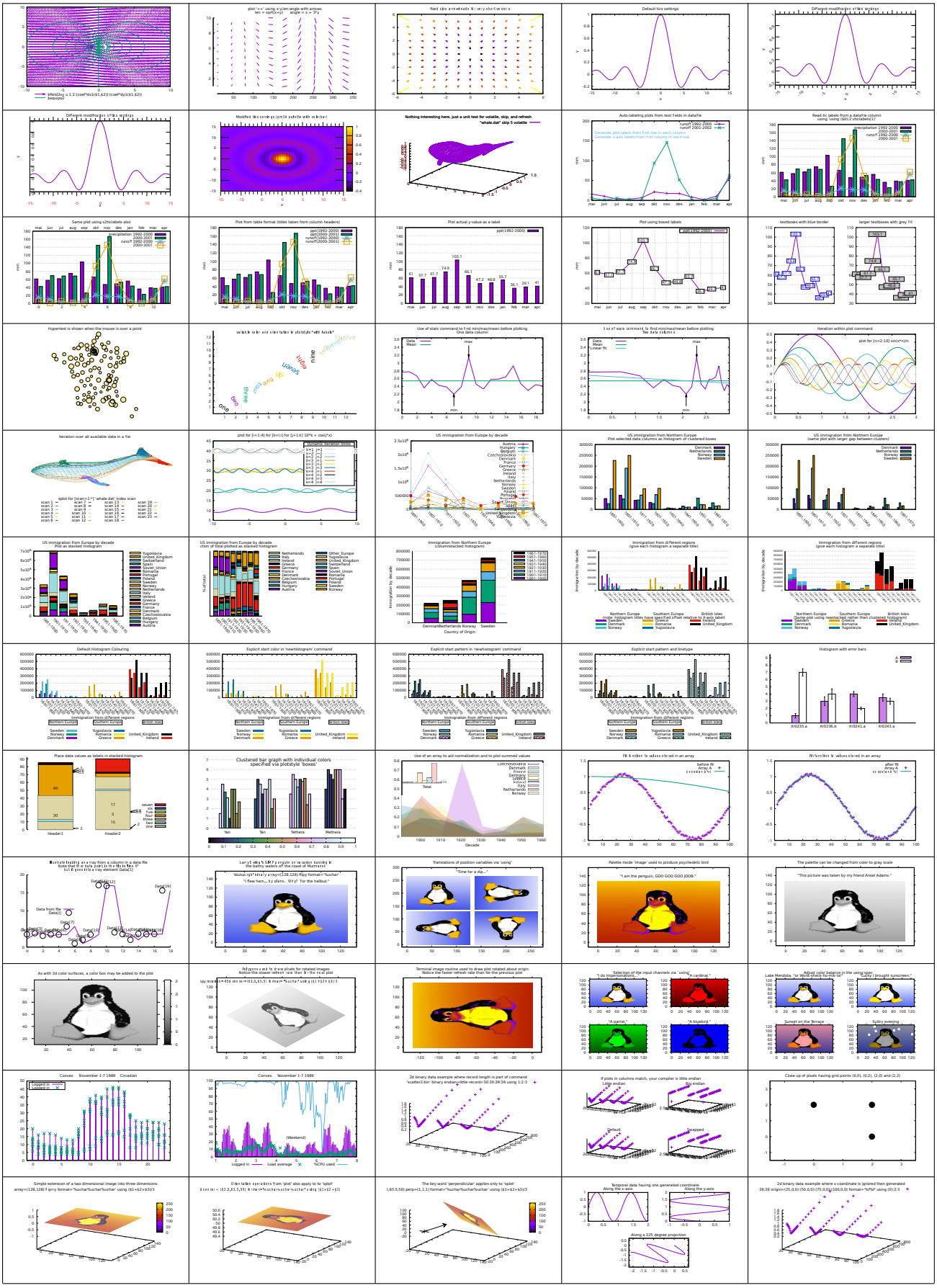

Cauchy PDF
Cauchy CDF
Chi-square χ^2 PDF
Chi-square χ^2 CDF
Erlang PDF
Erlang CDF
extreme PDF
extreme CDF
F PDF
F CDF
Gamma Γ PDF
incomplete gamma CDF
geometric PDF with p = 0.4
geometric CDF with p = 0.4
half normal PDF, σ = 1.0
half normal CDF, σ = 1.0
hypergeometric PDF with N = 75, C = 25, d = 10
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 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

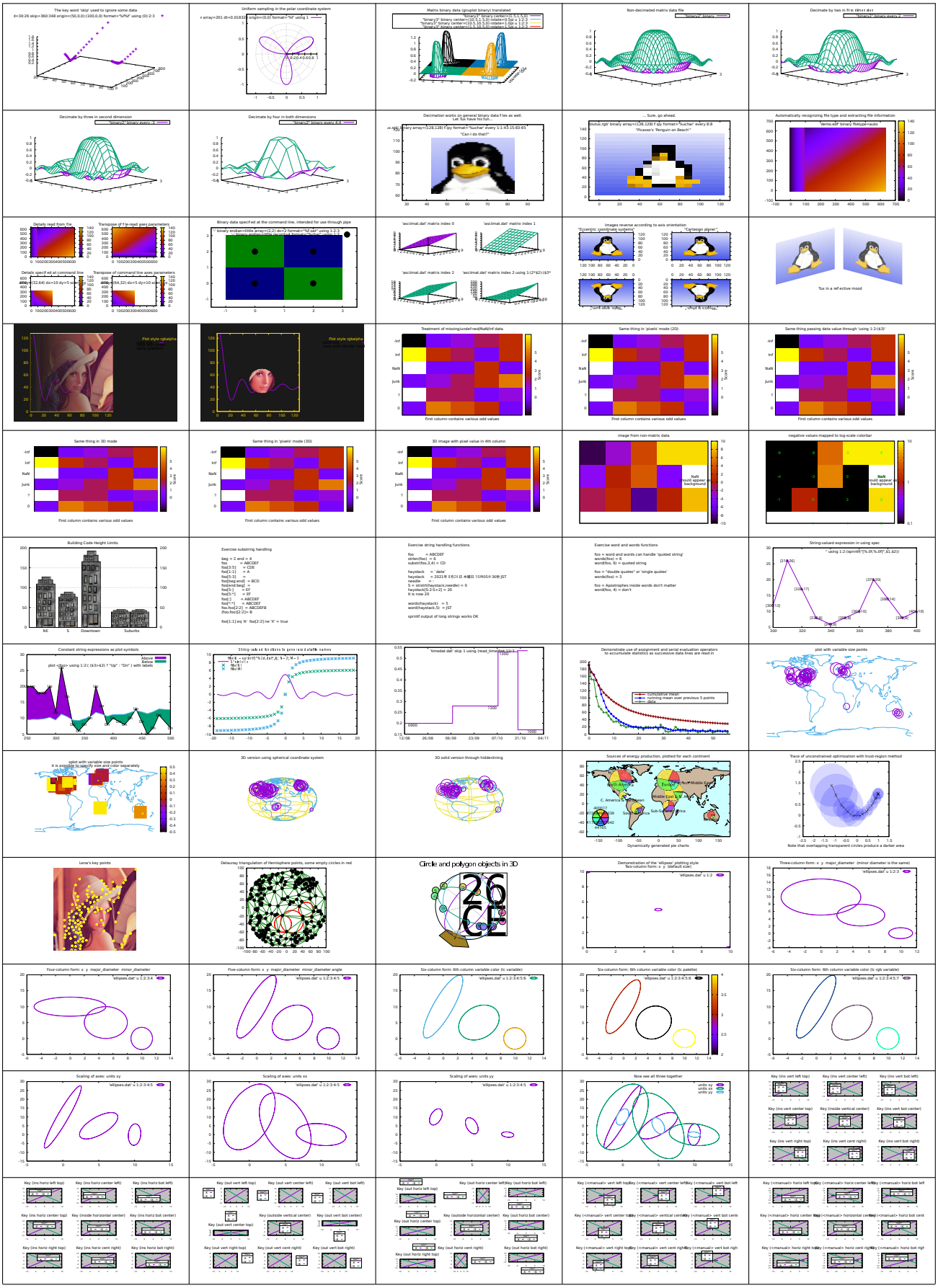

50 random samples from a 2D Gaussian PDF with unit variance, zero mean and no dependence
Histogram of 5000 random samples from a univariate Gaussian PDF with unit variance and zero mean
scaled bin frequency
Gaussian p.d.f
Histogram of distance from origin of 3000 multivariate unit variance samples
Gaussian 3D cloud of 3000 random samples
scaled bin frequency
Maxwell p.d.f
assign samples to 25 bins
Rug Plot
Uniform Distribution
smooth frequency
smooth cnorm
Normal Distribution
Lognormal Distribution
Mixed Distribution (Lognormal with shifted Gaussian)
smooth cumul abtrue
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
"Binary1" binary
Hidden line removal of explicit binary surfaces
"Binary2" binary
Notice that sampling rate can change
"Binary4" binary
Compare steps, fsteps and hsteps
steps
fsteps
hsteps
Histogram built from unsorted data by 'smooth frequency'
"hemisphr.dat" u 1:(sum[i=1:20]((i-1)*
Histogram built from unsorted data by 'smooth frequency'
with fsteps
counts per bin
bins
Normal Distribution Function
invnorm(x)
Inverse Error Function
inverf(x)
Inverse Normal Distribution Function
invnormx(x)
Simple demo of scatter data conversion to grid data
"hemisphr.dat"
data style point - no splines
data style lines, digits2d
"scatter2.dat"
data style points, nosplines
Real part of complex square root function
u**2-v**2,2*u*v,u
Real part of complex square root function (diverent view)
u**2-v**2,2*u*v,v
Imaginary part of complex square root function
u**2-v**2,2*u*v,v
Imaginary part of complex square root function (diverent view)
u**2-v**2,2*u*v,u
Real part of complex cube root function
u**3-3*u*v**2,3*u**2*v-v**3,u
Real part of complex cube root function (diverent view)
u**3-3*u*v**2,3*u**2*v-v**3,u
Imaginary part of complex cube root function
u**3-3*u*v**2,3*u**2*v-v**3,v
Imaginary part of complex cube root function (diverent view)
u**3-3*u*v**2,3*u**2*v-v**3,v
Real part of complex 4th root function
u**4-6*u**2*v**2+v**4,4*u**3*v-4*u*v**3,u
Real part of complex 4th root function (diverent view)
u**4-6*u**2*v**2+v**4,4*u**3*v-4*u*v**3,u
Imaginary part of complex 4th root function
u**4-6*u**2*v**2+v**4,4*u**3*v-4*u*v**3,v
Imaginary part of complex 4th root function (diverent view)
u**4-6*u**2*v**2+v**4,4*u**3*v-4*u*v**3,v
Enneper's surface
u-u**3/3+u*v**2,v-v**3/3+v*u**2,u**2-v**2
Enneper's surface (diverent view)
u-u**3/3+u*v**2,v-v**3/3+v*u**2,u**2-v**2
Moebius strip
(2-v*sin(u/2))*sin(u),(2-v*sin(u/2))*cos(u),v*cos(u/2)
Moebius strip (view from opposite side)
(2-v*sin(u/2))*sin(u),(2-v*sin(u/2))*cos(u),v*cos(u/2)
Klein bottle
Klein bottle with look at the 'inside'
Klein bottle, glassblowers' version (look-through)
Klein bottle, glassblowers' version (solid)
NACA6409 Airfoil
mean line
upper surface
lower surface
NACA6409 – 9% thick, 40% max camber, 6% camber
NACA0012 Airfoil
mean line
upper surface
lower surface
12% thick, no camber – classical test case
Joukowski Airfoil using Complex Variables
real(w),imag(w),r(z)
eps = 0.06 real
Joukowski Airfoil using Complex Variables
real(w),imag(w),r(z)
eps = 0.06 + i0.06
Parametric Sphere
cos(u)*cos(v),cos(u)*sin(v),sin(u)
Parametric Sphere, crunched z axis
cos(u)*cos(v),cos(u)*sin(v),sin(u)
Parametric Sphere, enlarged z axis
Parametric Torus
(1-0.2*cos(v))*cos(u),(1-0.2*cos(v))*sin(u),0.2*sin(v)
Parametric Hexagon
cos(v)**3*cos(u)**3,sin(v)**3*cos(u)**3,sin(u)**3

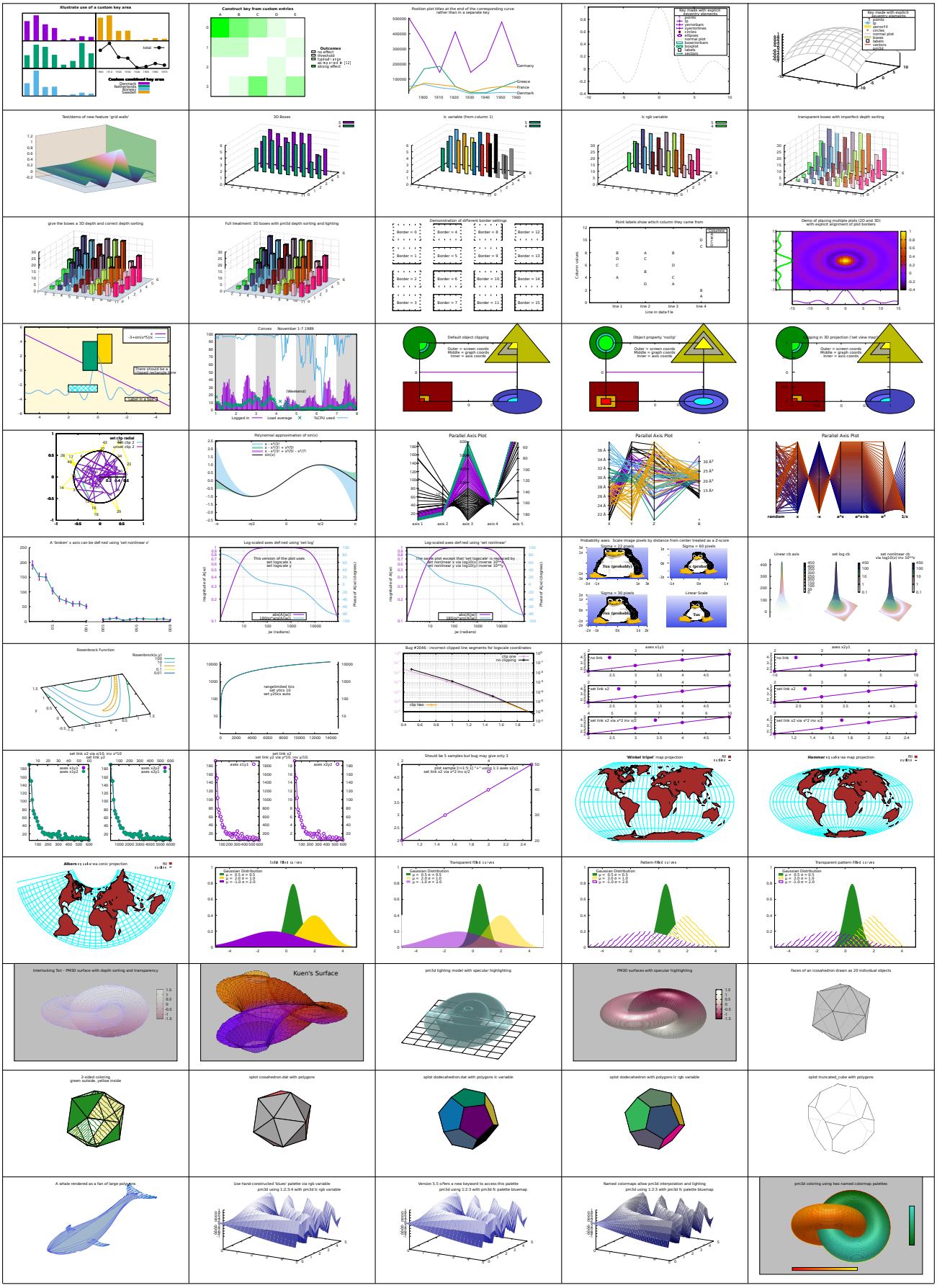

Parametric Helix
Parametric Shell (clipped to limited z range)
Parametric Shell (automatic z range)
Interlocking Tori
azimuth 0
azimuth 10
azimuth 60
2D projections of a 3D surface
general view
set view projection yz
set view projection xz
set view map
contour plot
more contours (15 levels)
contour by 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
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 Sinc function
contour of data grid plotting
contour of data grid plotting
2D contour projection of previous plot
Rosenbrock Function
Rosenbrock Function
All contours drawn in a single color
Sometimes it helps to use multiplot
default
hidden3d
Circle and polygon objects in 3D
approximate the integral of functions
approximate the integral of functions
approximate the integral of functions (upper and lower limits)
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
Fisteps plot
with date and time as x-values
Time data on Y, millisecond precision
Date format (top) vs Time format (bottom)
Simple Gantt Chart
Task start and end times in columns 2 and 3
Simple Gantt Chart
Task start and end times in columns 2 and 3
Terminal-independent RGB colors in 2D
Terminal-independent palette colors in 2D
Implemented using command line macros referring to a fixed HSV palette
RGB color information read from data file
Both RGB color information
and point size controlled by input
Both RGB color information
Both RGB color information
HSV color wheel
Demo of hidden3d with points only (no surface)
RGB coloring of pm3d surface
HSV coloring of pm3d surface
Explicit borders for pm3d tiling
variable color points, circles, candlesticks, boxes, and boxyerrorx
variable color boxerror, xyerrorbars, impulses, vectors, and labels
variable color using 'rc palette z'
variable color using 'rc palette z'

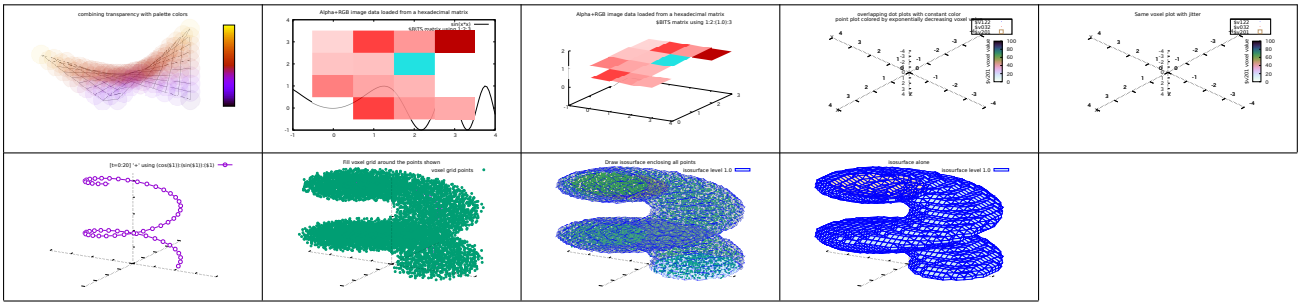



Dawson's integral of complex variable
Fresnel integrals C(z), S(z)
Clothoid using Fresnel integrals
Agreement of built-in airy(x) with Amos library Ai(z) for real z
Real(Ai(x+iy))
Imag(Ai(x+iy))
Modulus of Ai(z)
Modulus of Bi(z)
Modified Bessel functions of the second kind
complex Bessel function
Exponential Integral
Complete elliptic integrals of the first and second kinds
Incomplete beta integral
Synchrotron function F(x)
Heat Map generated from a file containing Z values only
Heat Map generated by 'plot' from a stream of XYZ values
Heat map with non-zero pixel values written as labels
Same data input as a sparse matrix (non-zero values only)
Sparse matrix handling is also possible with splot
Heat map from csv data with column and row labels
Compare 'image' and 'image pixels' modes
4D data (3D Heat Map)
Data file contains labeled ascii matrices
Mixing pm3d surfaces with hidden-line plots
Mixing image surface with hidden-line plots
Interlocking Tori
Rotation of label text
Enhanced text style markup
Illustrate use of unicode escape sequences
Terminal's native dashtypes
Top: plot with vectors arrowstyle 1, Bottom: explicit arrows
Top: plot with vectors arrowstyle 2, Bottom: explicit arrows
Top: plot with vectors arrowstyle 3, Bottom: explicit arrows
Top: plot with vectors arrowstyle 4, Bottom: explicit arrows
Top: plot with vectors arrowstyle 5, Bottom: explicit arrows
Top: plot with vectors arrowstyle 6, Bottom: explicit arrows
Top: plot with vectors arrowstyle 7, Bottom: explicit arrows
Top: plot with vectors arrowstyle 8, Bottom: explicit arrows








combining transparency with palette colors
Alpha+RGB image data loaded from a hexadecimal matrix
Alpha+RGB image data loaded from a hexadecimal matrix
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