Figure Number and Filename Guide

The following tables give the filename associated with each Figure.

Chapter 1: Descartes' Discovery

Figure Number	Filename
Figure 1.1	Lake
Figure 1.2	Boxes
Figure 1.3	Icons2
Figure 1.4	Microscr

Chapter 2: Here and There: Points and Vectors

Figure Number	Filename
Figure 2.1	Katrina
Figure 2.2	Vecfield
Figure 2.3	Vecfld
Figure 2.4	Unitvecs
Figure 2.5	Cosine

Chapter 3: Lining Up: 2D Lines

Figure Number	Filename
Figure 3.1	moire
Figure 3.2	Linefam
Figure 3.3	obstacs, Feet
Figure 3.4	Intersec

Chapter 4: Changing Shapes: Linear Maps in 2D

Figure Number	Filename
Figure 4.1	Sqrose
Figure 4.2	Scale
Figure 4.3	Scale1
Figure 4.4	Reflectx
Figure 4.5	Reflover
Figure 4.6	Reflxy
Figure 4.7	Rotate
Figure 4.8	Shearx

Figure 4.9	Sheary
Figure 4.10	Project
Figure 4.11	Projection2D
Figure 4.12	Nocomm

Chapter 5: 2x2 Linear Systems

Figure Number	Filename
Figure 5.1	Intro2x2
Figure 5.2	Inverse1
Figure 5.3	Inverse2
Figure 5.4	Invtrans
Figure 5.5	LinearSysLines
Figure 5.6	HomoSysLines

Chapter 6: Moving Things Around: Affine Maps in 2D

Figure Number	Filename
Figure 6.1	Pacman
Figure 6.2	Parlines
Figure 6.3	translate
Figure 6.4	aff2d_combo1a, aff2d_combo1b
Figure 6.5	aff2d_combo2a, aff2d_combo2b
Figure 6.6	S_rot1
Figure 6.7	S_rotran
Figure 6.8	Escher
Figure 6.9	Escheraf

Chapter 7: Eigen Things

Figure Number	Filename
Figure 7.1	Tacoma
Figure 7.2	Tacoma2
Figure 7.3	Mat2112
Figure 7.4	Eigenvec
Figure 7.5	Parabs
Figure 7.6	Matdecom
Figure 7.7	Eigendecom
Figure 7.8	Qform_ellipsoid, Qform_ellipsoid_contour
	Qform_parabaloid, Qform_parabaloid_contour
	Qform_hyper, Qform_hyper_contour
Figure 7.9	Qform_posdef
Figure 7.10	Mat1rep
Figure 7.11	Mat2rep

Chapter 8: 3D Geometry

Figure Number	Filename
Figure 8.1	GuggenheimBilbao
Figure 8.2	Hedgehog
Figure 8.3	Klein
Figure 8.4	Smooth

Chapter 9: Linear Maps in 3D

Figure Number	Filename
Figure 9.1	Flight
Figure 9.2	LinearMaps3D_uniformscale
Figure 9.3	LinearMaps3D_scale
Figure 9.4	LinearMaps3D_shear
Figure 9.5	L_z_axis_rot
Figure 9.6	L_gen_rotate
Figure 9.7	Projections3D
Figure 9.8	Nocomm3d

Chapter 10: Affine Maps in 3D

Figure Number	Filename
Figure 10.1	Fighters
Figure 10.2	Pplanes
Figure 10.3	Tteapot
Figure 10.4	Helixpro
Figure 10.5	Hortho
Figure 10.6	Hpersp
Figure 10.7	Durer

Chapter 11: Interactions in 3D

Figure Number	Filename
Figure 11.1	Transprt

Chapter 12: Gauss for Linear Systems

Figure Number	Filename
Figure 12.1	laplace_before, laplace_after
Figure 12.2	PolyInterp

Figure 12.3	lsq_Dow
Figure 12.4	lsq_experiment
Figure 12.5	hip_prosthesis, sphere_least_sq

Chapter 13: Alternative System Solvers

Figure Number	Filename
Figure 13.1	Sparse
Figure 13.2	unitcircs
Figure 13.3	matrix-stretch
Figure 13.4	Stretch
Figure 13.5	Vectorlimit

Chapter 14: General Linear Spaces

Figure Number	Filename
Figure 14.1	Polyspace
Figure 14.2	Matrices
Figure 14.3	InnerProducts

Chapter 15: Higher Eigen

Figure Number	Filename
Figure 15.1	Googlematrixwikipedia2009
Figure 15.2	PowerMethodA1, PowerMethodA2, PowerMethodA3
Figure 15.3	google_graph

Chapter 16: The Singular Value Decomposition

Figure Number	Filename
Figure 16.1	Compression8x8
Figure 16.2	SVD_2x2_scale, SVD_2x2_circle, SVD_2x2_shear
Figure 16.3	SVD_2x2
Figure 16.4	DimsMgN, DimsMeN, DimsMlN
Figure 16.5	SVD1_orig, SVD1_vt, SVD1_usvt, SVD1_svt
Figure 16.6	SVD2_orig, SVD2_vt, SVD2_usvt, SVD2_svt
Figure 16.7	SVD_Compression4x4
Figure 16.8	PCAdatapos
Figure 16.9	PCAdata, PCAqform
Figure 16.10	PCAe12, PCAe1, PCAe2

Chapter 17: Breaking it Up: Triangles

Figure Number	Filename
Figure 17.1	Key
Figure 17.2	Triex
Figure 17.3	TriangulatedSurface

Chapter 18: Putting Lines Together: Polylines and Polygons

Figure Number	Filename
Figure 18.1	Bird
Figure 18.2	Pattern
Figure 18.3	IsoparametricCurvesU, IsoparametricCurvesV
Figure 18.4	Circappr
Figure 18.5	TrimmedSurface, TrimmedSurfaceDomain
Figure 18.6	Even_odd
Figure 18.7	Winding

Chapter 19: Conics

Figure Number	Filename
Figure 19.1	ConesConicsEllipse, ConesConicsParabola, ConesConicsHyperbola
Figure 19.2	ConicSectionEllipse1, ConicSectionEllipse2, ConicSectionEllipse3
Figure 19.3	ConicSectionHyperbola1, ConicSectionHyperbola2, ConicSectionHyperbola3

Chapter 20: Curves

Figure Number	Filename
Figure 20.1	Ford
Figure 20.2	Bez_ex
Figure 20.3	Alldecas
Figure 20.4	Bbasis
Figure 20.5	Bez_move
Figure 20.6	Convhull, Minmax
Figure 20.7	D_bez
Figure 20.8	Inflect
Figure 20.9	Infl2
Figure 20.10	Slide
Figure 20.11	Wagner1