INDEX 2197

uncorrelated, 771	coordinate, 84
undirected graph, 704	complexification, 614
uniform continuity, 1370	dimension, 79, 83
union complement kernel, 1913	infinite dimension, 83
unique global minimum, 1508	norm, 325
unit quaternions, 587	obtained by taking $a$ as the origin, 799
unitary	vector-valued alternating form
group, 531	basis representation, 1234, 1236
map, 621	definition, 1234
matrix, 531	multiplication, 1235
unitary group	vertex, 1561
definition, 533	adjacent, 705
unitary matrix, 337	vertex of a graph, 702, 704
definition, 532	degree, 702
unitary representation, 1923	view plane, 949
unitary space	viewing system, 949
definition, 518	von Staudt, 936
unitary transformation, 529	Voronoi diagram, 478
definition, 530	
universal property	walk, see directed graph path, see graph path
of the homogenization, 850	Walsh function, 160
of the projective completion, 905	wavelets
unreduced Hessenberg matrix, 658	Haar, 141
up to a scalar, 856	weak duality, 1611, 1780
upper bounds, 1668	weakly compact, see converges weakly
upper triangular matrix, 222, 556	wedge product
Uzawa's method, 1811	definition, 1209
	Hodge *-operator, 1215
Vandermonde determinant, 221	skew-symmetry, 1210
variance, 770	Weierstrass–Bolzano property, 1372
variational inequalities, 1679, 1681	weighed point
variational problem, 1510	definition, 805
variety, 876	weight matrix
Veblen and Young, 856, 947	isolated vertex, 713
vector, 792, 799	weighted graph, 699, 707
free, 792, 796, 797	adjacent vertex, 708
sparsity, 2050	degree of vertex, 708
vector space, 791, 841	edge, 707
acting on a set, 797	underlying graph, 707
associated with $E$ , 799	weight matrix, 707
basis, 77	weighted point, 842
component, 84	Weyl, 740