

rmul() (sympy.combinatorics.permutations.Permutation) (sympy.geometry.curve.Curve static method), 280 method), 2251 rmul with af() (sympy.combinatorics.permutationast.Pe)rmutationarpy.geometry.ellipse.Ellipse class method), 281 method), 2266 rmultiply()(sympy.matrices.common.MatrixCoortaites())(sympy.geometry.entity.GeometryEntity method), 1351 method), 2196 root (in module sympy.printing.pretty.pretty symbology), (sympy.geometry.point.Point2D 2185 method), 2209 root() module rotate()(sympy.geometry.polygon.RegularPolygon (in sympy.functions.elementary.miscellaneous), method), 2291 module rotate left() (in root() (sympy.polys.polytools.Poly method), sympy.utilities.iterables), 2092 rotate point() (sympy.algebras.Quaternion 2415 static method), 895 root() (sympy.printing.pretty.stringpict.stringPict method), 2187 rotate right() module root space() (sympy.liealgebras.root system.RootSystem.py.utilities.iterables), 2092 method), 2328 Rotation (class in RootOf (class in sympy.polys.rootoftools), sympy.physics.quantum.spin), 1825 2431 rotation(sympy.geometry.polygon.RegularPolygon rootof() property), 2292 module (in sympy.polys.rootoftools), 2431 rotation matrix() roots() (in module sympy.polys.polyroots), (sympy.vector.coordsysrect.CoordSys3D 2436 method), 1454 roots() (sympy.liealgebras.type a.TypeA rotation matrix() method), 2329 (sympy.vector.orienters.AxisOrienter (sympy.liealgebras.type b.TypeB roots() method). 1467 method), 2331 rotation matrix() roots() (sympy.liealgebras.type c,TypeC (sympy.vector.orienters.Orienter method), 2332 method), 1466 roots() (sympy.liealgebras.type d.TypeD rotations() (in module sympy.utilities.iterables), 2092 method), 2334 roots() (sympy.liealgebras.type e.TypeE round() (sympy.core.expr.Expr method), 973 method), 2335 round two() (in module (sympy.liealgebras.type f.TypeF sympy.polys.numberfields.basis), roots() 2703 method), 2337 roots() (sympy.liealgebras.type q.TypeG RoundFunction (class in method), 2338 sympy.functions.elementary.integers), RootSum (class in sympy.polys.rootoftools), 410 2436 roundrobin() module (in sympy.utilities.iterables), 2092 RootSystem (class in sympy.liealgebras.root system), Routine (class in sympy.utilities.codegen), 2326 2052 Ropen() (sympy.sets.sets.Interval class routine() (sympy.utilities.codegen.CodeGen method),  $\overline{2049}$ method), 1195 rot90() (sympy.matrices.common.MatrixCommonutine() (sympy.utilities.codegen.JuliaCodeGen method), 1351 method), 2051 routine() (sympy.utilities.codegen.OctaveCodeGen rot axis1() (in module sympy.matrices.dense), 1324 method), 2052 (in module routine() (sympy.utilities.codegen.RustCodeGen rot axis2() method), 2053 sympy.matrices.dense), 1325 module row() (sympy.matrices.common.MatrixCommon rot axis3() (in sympy.matrices.dense), 1326 method), 1352 rotate() (sympy.combinatorics.polyhedron.Polyhadden () (sympy.matrices.common.MatrixCommon method), 334 method), 1352



row_in	sert() (sympy.matr method), 1352	ices.common.Matri	x <b>Cs<u>n</u>pono</b> (n)	(in polys.ring_series	module
row_jo	in()(sympy.matrice	es.common.MatrixC	o <b>ns<u>m</u>poun</b> iseux()	(in	module
	ce()(sympy.matrice	s.matrices.MatrixS	<i>ubs<u>p</u>pucies</i> eux2(	) (in	module
rowspa	method), 1237 ce() (sympy.polys.m method), 2683	atrices.domainmat	rixsD <b>oer</b> aied <u>M</u> tit	.polys.ring_series rim_list() (i .polys.ring_series	n module
rref()	(sympy.matrices.ma	trices.MatrixReduc	<i>ti</i> osnsseries in	version() (i	n module
rref()	method), 1234 (sympy.polys.m method), 2691	natrices.ddm.DDM	rs_series_re	version() (i polys.ring_series	n module 0. 2660
rref()	method), 2691 (sympy.polys.matric method), 2684	es.domainmatrix.D	o <b>ns<u>a</u>isniM(at)</b> rix	in (in polys.ring_series)	module
rref()	(sympy.polys.r	natrices.sdm.SDM	rs_sinh()	(in	module
rs_asi	method), 2698 n() (in	module	rs_square()	in (in series)	module 0. 2659
rs_ata	sympy.polys.ring_sen() (in	module	rs_subs()	in (in nolvs ring series)	module 0. 2662
rs_ata	sympy.polys.ring_senh() (in	module	rs_swap()(in	module sympy.sto	its.rv), 2982 module
rs_com	pose_add() sympy.polys.ring_se	(in module	sympy	.polys.ring_series	), 2655 module
rs_cos	nh() (in sympy.polys.ring_sepose_add() sympy.polys.ring_sepose_sin() (in sympy.polys.ring_sepose_sin() (in sympy.polys.ring_sepose_sin() (in sympy.polys.ring_sepose_sing) (in sympy.polys.ring_sepose_sing) (in sympy.polys.ring_sepose_sympy.polys.ring_sympy.polys.ring_sympy.polys.ring_sympy.polys.ring_sympy.polys.ring_sympy.polys.ring_sympy.polys.ring_sympy.polys.ring_sympy.polys.ring_sympy.polys.ring_sympy.polys	module	sympy	.polys.ring_series	), 2658 module
rs_cos	_sin() (in _sympy.polys.ring_se	module eries), 2657	sympy	.polys.ring_series kev() (in	), 2661 module
rs_cos	h() (in sympy polys ring se	module	sympy rsa public k	.crypto.crypto), 2'	782 module
rs_cot	() (in sympy polys ring se	module	sympy	.crypto.crypto), 2' module_sympy.so	780 Nyers recurr)
rs_dif	f() (in sympy polys ring se	module	853	() (in	module
rs_exp	() (in sympy polys ring se	module	sympy	solvers.recurr),8	555 Sin module
rs_fun	() (in sympy polys ring se	module	sympy	series.formal), 65	57 module
rs_had	amard_exp() sympy.polys.ring_se	(in module	sympy rsolve ratio	, solvers.recurr), 8 () (in	module
rs_int		in module	- sympy	.solvers.recurr), 8	
rs_is_		in module		d), 2031	module
rs_Lam	bertW() (ii sympy.polys.ring_se	n module	 sympy	.testing.runtests),	
rs_log		module		odule sympy.test	
rs_mul		module		odule sympy.utilit	ies.iterables),
rs_new		module	runs()(sympy	o.combinatorics.pe d), 281	ermutations.Permutatior
rs_nth	_root() (ii sympy.polys.ring_se	n module		in module sympy. <sub>l</sub>	orinting.rust),



RustCodeGen	(class tilities.codegen), 2052	in	scale_factor (sympy.physics.units.quantities.Quantity property), 1588
RustCodePrinte		in	scalex() (sympy.series.fourier.FourierSeries method), 640
S	g,,		scc() (sympy.polys.matrices.ddm.DDM method), 2691
	sympy.physics.quantum.ga	te),	scc() (sympy.polys.matrices.domainmatrix.DomainMatrix method), 2684
same_root() method)	(sympy.polys.polytools.l	Poly	scc() (sympy.polys.matrices.sdm.SDM method), 2698
sample() (in mo	odule sympy.stats), 2971 oy.stats.DiscreteMarkovCh	nain	<pre>schreier_sims()(sympy.combinatorics.perm_groups.Perm method), 324</pre>
method)	, 2950		schreier_sims_incremental()
	(in module sympy.stats), 2		(sympy.combinatorics.perm_groups.PermutationGromethod), 325
sampling_densi	ity() (in mod tats.rv), 2976	lule	schreier_sims_random()
	(in module sympy.stats.	rv),	(sympy.combinatorics.perm_groups.PermutationGro method), 326
	(in module sympy.stats.	rv),	schreier_vector()
2976			(sympy.combinatorics.perm_groups.PermutationGro
satisfiable()	(in mod	lule	method), 327 schur() (sympy.matrices.expressions.blockmatrix.BlockMa
	ogic.inference), 1184 sympy.polys.agca.ideals.Ic	loal	method), 1383
method)	2464		Scope (class in sympy.codegen.ast), 1136
scalar_map()(s method)	sympy.vector.coordsysrect	.Cooi	r&BM&glass in sympy.polys.matrices.sdm), 2692 sdm_add() (in module
	(sympy.algebras.Quaterr	nion	sympy.polys.distributedmodules), 2622
scalar_potenti sympy.p 1672	ial() (in mod hysics.vector.fieldfunction		sdm_deg() (in module sympy.polys.distributedmodules), 2624
scalar_potenti		lule	<pre>sdm_ecart() (in module</pre>
0,0	ector), 1474	, ,	sympy.polys.distributedmodules), 2641
	ial_difference()(in mod		sdm from dict() (in module
1673	hysics.vector.fieldfunction		sympy.polys.distributedmodules), 2622
	ial_difference()(in mod ector), 1474	iuie	sdm from vector() (in module
	(sympy.geometry.curve.Cu	ırve	sympy.polys.distributedmodules), 2624
	sympy.geometry.ellipse.Ci	rcle	<pre>sdm_groebner() (in module</pre>
· ·	ympy.geometry.ellipse.Elli	pse	2641 sdm_LC() (in module
	.geometry.entity.Geometry	Entit	2622
scale() (s method)	sympy.geometry.point.Poin ), 2210	t2D	<pre>sdm_LM() (in module</pre>
scale() (s method)	sympy.geometry.point.Poin ), 2214	t3D	2623 sdm_LT() (in module
scale() (sympy. method)	.geometry.polygon.Regula ), 2292	rPoly	2623
scale() (symp method)	oy.series.fourier.FourierSe ), 640	ries	<pre>sdm_monomial_deg() (in module</pre>



2621	method), 2283
sdm monomial divides() (in module	
sympy.polys.distributedmodules), 2621	Segment2D (class in sympy.geometry.line), 2242
sdm monomial mul() (in module	
sympy.polys.distributedmodules),	2247
2620	select() (sympy.simplify.epathtools.EPath
<pre>sdm_mul_term() (in module</pre>	method), 689
sympy.polys.distributedmodules), 2623	selections (sympy.combinatorics.graycode.GrayCode property), 349
sdm_nf_mora() (in module	semilatus_rectum( <i>sympy.geometry.ellipse.Ellipse</i>
sympy.polys.distributedmodules),	property), 2268
2641	sensitivity (sympy.physics.control.lti.Feedback
<pre>sdm_spoly() (in module</pre>	property), 1908
sympy.polys.distributedmodules), 2640	sensitivity (sympy.physics.control.lti.MIMOFeedback property), 1930
<pre>sdm_to_dict()</pre>	Separable (class in
sympy.polys.distributedmodules),	sympy.solvers.ode.single), 789
2622	SeparableReduced (class in
<pre>sdm_to_vector() (in module</pre>	5 1 5 77
sympy.polys.distributedmodules), 2624	separate() (sympy.core.expr.Expr method), 973
<pre>sdm_zero() (in module</pre>	separate()(sympy.physics.vector.vector.Vector
sympy.polys.distributedmodules),	method), 1646
2624	separate() (sympy.vector.vector.Vector
search() (sympy.ntheory.generate.Sieve	method), 1457
method), 1478	separatevars() (in module
search_function(sympy.physics.quantum.gr	
property), 1848	SeqAdd (class in sympy.series.sequences), 636
	n <b>&amp;negBais)</b> , (class in sympy.series.sequences),
393 sech (class in sympy.functions.elementary.hyp	632 e <b>rSædfæ</b> rmula ( <i>class in</i>
404	sympy.series.sequences), 634
	ec <b>5aqMus</b> Lh <b>elmssBrasy</b> mpy.series.sequences), 637
property), 1975	SeqPer (class in sympy.series.sequences), 635
second_moment (sympy.physics.continuum_me	
property), 1997	sympy.series.sequences), 632
second_moment_of_area()	Series (class in sympy.physics.control.lti),
(sympy.geometry.ellipse.Ellipse	1899
method), 2266	series() (in module sympy.series.series),
second_moment_of_area()	626
(sympy.geometry.polygon.Polygon method), 2282	series() (sympy.core.expr.Expr method), 973
	series()(sympy.holonomic.holonomic.HolonomicFunction
sympy.solvers.ode.single), 794	method), 2320
SecondLinearAiry (class in	$series() (sympy.liealgebras.cartan\_type.Standard\_Cartar$
sympy.solvers.ode.single), 777	method), 2340
	SeriesApprox (class in
sympy.solvers.ode.single), 778	sympy.codegen.approximations),
section_modulus()	1122
(sympy.geometry.ellipse.Ellipse	Set (class in sympy.sets.sets), 1185
<pre>method), 2267 section modulus()</pre>	set_acc() (sympy.physics.vector.point.Point method), 1656
(sympy.geometry.polygon.Polygon	set_ang_acc() (sympy.physics.vector.frame.ReferenceFra
(3ympy.geomen y.porygom.i orygom	3cc_ang_acc() (3ympy.pn.ysics.vector.jrame.nejerencerra

```
method), 1640
                                                    property), 1997
set ang vel() (sympy.physics.vector.frame.Referencesfroess() (sympy.physics.continuum mechanics.bear
       method), 1640
                                                    method), 1976
set comm()(sympy.tensor.tensor.TensorManagerear stress()(sympy.physics.continuum mechanics.bear
       method), 1422
                                                    method), 1997
set comms() (sympy,tensor,tensor, TensorMan&deir(class in sympy,functions.special.error functions),
       method). 1423
set domain()
                 (sympy.polys.polytools.Poly shift()
                                                           (sympy.polys.polyclasses.DMP
       method), 2416
                                                    method), 2566
set_global_relative_scale_factor()
                                             shift() (sympy.polys.polytools.Poly method),
       (sympy.physics.units.quantities.Quantity
                                                    2416
       method), 1588
                                             shift() (sympy.series.fourier.FourierSeries
set_global settings()
                                                    method), 641
       (sympy.printing.printer.Printer class
                                             ShiftedGompertz() (in module sympy.stats),
       method), 2139
                                                    2925
set modulus()
                 (sympy.polys.polytools.Poly
                                             shiftx() (sympy.series.fourier.FourierSeries
       method), 2416
                                                    method), 641
set pos() (sympy.physics.vector.point.Point
                                             shor()
                                                                                 module
       method), 1656
                                                    sympy.physics.quantum.shor), 1856
set vel() (sympy.physics.vector.point.Point
                                             Si (class in sympy.functions.special.error functions),
       method), 1656
seterr() (in module sympy.core.numbers),
                                             sides
                                                        (sympy.geometry.polygon.Polygon
       995
                                                    property), 2283
SetKind (class in sympy.sets.conditionset),
                                             Sieve (class in sympy.ntheory.generate),
       1217
                                                    1476
                                             sift() (in module sympy.utilities.iterables),
       (sympy.sets.fancysets.ComplexRegion
       property), 1211
                                                    2093
setup() (in module sympy.polys.polyconfig),
                                             sigma approximation()
       2643
                                                    (sympy.series.fourier.FourierSeries
                                                    method), 642
sfield() (in module sympy.polys.fields),
       2560
                                             sign (class in sympy functions.elementary.complexes),
shanks()
                     (in
                                    module
       sympy.series.acceleration), 630
                                             sign
                                                      (sympy.physics.control.lti.Feedback
shape (sympy.matrices.common.MatrixCommon
                                                    property), 1909
       property), 1353
                                             sign (sympy.physics.control.lti.MIMOFeedback
shape (sympy.physics.control.lti.MIMOParallel
                                                    property), 1931
       property), 1927
                                             sign() (in module sympy.series.gruntz), 624
shape (sympy.physics.control.lti.MIMOSeries signature
                                                            (sympy.core.function.Lambda
       property), 1924
                                                    property), 1040
shape (sympy.physics.control.lti.TransferFunctionighattrixe() (sympy.combinatorics.permutations.Permutations.
       property), 1921
                                                    method), 282
shape (sympy.tensor.indexed.Indexed prop-
                                             signed permutations()
                                                                                 module
                                                                          (in
       ertv). 1403
                                                    sympy.utilities.iterables), 2094
shape
         (sympy.tensor.indexed.IndexedBase
                                             SignedIntType (class in sympy.codegen.ast),
       property), 1405
shape() (in module sympy.codegen.fnodes),
                                             simple root()(sympy.liealgebras.type a.TypeA
                                                    method), 2329
       1155
ShapeError
                                         in simple root()(sympy.liealgebras.type b.TypeB
                       (class
       sympy.matrices.matrices), 1318
                                                    method), 2331
shear_force()(sympy.physics.continuum mechampdsebeoot.Be(snympy.liealgebras.type c.TypeC
                                                    method), 2332
       method), 1976
shear force()(sympy.physics.continuum mechamidsebeoot.Be(syn3Dpy.liealgebras.type d.TypeD
       method), 1997
                                                    method), 2334
shear modulus (sympy, physics.continuum mechamidsebeaat Beast Delisable py, lie algebras.type e. Type E
```



```
method), 2335
                                            singularities()
                                                                                module
                                                                     (in
simple root()(sympy.liealgebras.type f.TypeF
                                                    sympy.calculus.singularities), 239
       method), 2337
                                            SingularityFunction
                                                                         (class
simple root()(sympy.liealgebras.type g.TypeG
                                                    sympy.functions.special.singularity functions),
       method), 2338
                                                    456
simple roots()(sympy.liealgebras.root systemsiRmgntSaysitenyintegrate()
                                                                         (in
                                                                                module
       method), 2328
                                                    sympy.integrals.singularityfunctions),
simpleDE() (in module sympy.series.formal),
                                                    591
                                            SingularPredicate
       656
                                                                        (class
                                                                                     in
SimpleDomain
                        (class
                                         in
                                                    sympy.assumptions.predicates.matrices),
       sympy.polys.domains.simpledomain),
       2522
                                            sinh (class in sympy functions.elementary.hyperbolic),
simplify()
                      (in
                                   module
       sympy.simplify.simplify), 661
                                            size (sympy.combinatorics.permutations.Permutation
simplify()
                    (sympy.core.basic.Basic
                                                    property), 282
       method), 941
                                            size (sympy.combinatorics.polyhedron.Polyhedron
simplify()(sympy.matrices.common.MatrixCommon property), 335
                                            size
                                                      (sympy.combinatorics.prufer.Prufer
       method), 1353
simplify()(sympy.matrices.dense.MutableDenseMatriproperty), 338
       method), 1363
                                            size
                                                    (sympy.combinatorics.subsets.Subset
simplify()(sympy.physics.vector.dyadic.Dyadic
                                                    property), 344
       method), 1650
                                            size() (in module sympy.codegen.fnodes),
simplify()(sympy.physics.vector.vector.Vector
                                                    1155
       method), 1646
                                            sizeof() (in module sympy.codegen.cnodes),
simplify gpgp()
                                   module
                                                    1149
                         (in
       sympy.physics.hep.gamma matrices),
                                            Skellam() (in module sympy.stats), 2885
                                            skewness() (in module sympy.stats), 2975
simplify index permutations()(in module
                                            SKIP() (in module sympy.testing.pytest),
       sympy.physics.secondquant), 1564
                                                    2027
                                   module skip() (sympy.combinatorics.graycode.GrayCode
simplify logic()
       sympy.logic.boolalg), 1176
                                                    method), 349
sin (class in sympy.functions.elementary.trigon@hete(),
                                                           (sympy.polys.polyclasses.DMP
                                                    method), 2566
sinc (class in sympy functions elementary trigon driver (i) (sympy polys polytools. Poly method),
       394
                                                    2416
sine transform()
                                   module slope
                                                   (sympy.geometry.line.LinearEntity2D
                         (in
                                                    property), 2237
       sympy.integrals.transforms), 581
                                         in slope()(sympy.physics.continuum mechanics.beam.Beam
SineTransform
                         (class
       sympy.integrals.transforms), 582
                                                    method), 1976
SingleDomain (class in sympy.stats.rv), 2981
                                            slope() (sympy.physics.continuum mechanics.beam.Beam3
SinglePSpace (class in sympy.stats.rv), 2981
                                                    method), 1997
Singleton (class in sympy.core.singleton),
                                            smallest angle between()
       946
                                                    (sympy.geometry.line.LinearEntity
SingletonRegistry
                           (class
                                         in
                                                    method), 2227
       sympy.core.singleton), 945
                                            smith normal form()
                                                                        (in
                                                                                module
singular points()
                                                    sympy.matrices.normalforms), 1386
       (sympy.vector.implicitregion.ImplicitRegionth normal form()
                                                                        (in
                                                                                module
       method), 1465
                                                    sympy.polys.matrices.normalforms),
singular value decomposition()
                                                    2700
       (sympy.matrices.matrices.MatrixBase smoothness()
                                                                    (in
                                                                                module
       method), 1309
                                                    sympy.ntheory.factor), 1486
singular values()
                                            smoothness p()
                                                                     (in
                                                                                module
                                                    sympy.ntheory.factor), 1487
       (sympy.matrices.matrices.MatrixEigen
       method), 1278
                                            solve() (in module sympy.solvers.solvers),
```



836 solveset() (in module
solve() (sympy.matrices.matrices.MatrixBase sympy.solvers.solveset), 866
method), 1312 solveset_complex() (in module
solve_aux_eq() (in module sympy.solvers.solveset), 868
sympy.solvers.ode.riccati), 805 solveset_real() (in module
solve_congruence() (in module sympy.solvers.solveset), 868 sympy.ntheory.modular), 1511 solvify() (in module
solve_de() (in module sympy.series.formal), sympy.solvers.solveset), 869
658 SOPform() (in module sympy.logic.boolalg),
solve for ild moment()  1160
(sympy.physics.continuum mechanics.b <b>gant</b> . <b>Beayt</b> () (sympy.combinatorics.partitions.Partition
method), 1977 — method), 253
solve_for_ild_reactions()
(sympy.physics.continuum_mechanics.beam.Beamethod), 941
<pre>method), 1978</pre>
solve_for_ild_shear()
(sympy.physics.continuum_mechanics.beam.Be <b>ame</b> thod), 1419
method), 1979 source (sympy.geometry.line.Ray property),
solve_for_reaction_loads() 2232
(sympy.physics.continuum_mechanics.b <b>sawr.&amp;e</b> a)m(in module sympy.utilities.source), method), 1980 2116
solve for reaction loads() SpaceOrienter (class in
(class in spaceof fence) (sympy.physics.continuum mechanics.beam.Be <b>sym3p</b> y.vector.orienters), 1468
method), 1997 spaces (sympy.physics.quantum.hilbert.DirectSumHilbertS)
solve least squares() property), 1803
(sympy.matrices.matrices.MatrixBase spaces (sympy.physics.quantum.hilbert.TensorProductHilbe
method), 1313 property), 1806
method), 1313 property), 1806 solve_lin_sys() (in module SparseMatrix (in module
method), 1313 property), 1806 solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666 sympy.matrices.sparse), 1364
method), 1313 property), 1806  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666 sympy.matrices.sparse), 1364  solve_linear() (in module speed(sympy.physics.optics.medium.Medium
method), 1313 property), 1806  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666 sympy.matrices.sparse), 1364  solve_linear() (in module speed (sympy.physics.optics.medium.Medium property), 1871
method), 1313 property), 1806  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666 sympy.matrices.sparse), 1364  solve_linear() (in module speed (sympy.physics.optics.medium.Medium property), 1871  solve_linear_system() (in module speed (sympy.physics.optics.waves.TWave
method), 1313  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666  solve_linear() (in sympy.solvers.solvers), 844  solve_linear_system() (in module speed (sympy.physics.optics.medium.Medium property), 1871  solve_linear_system() (in module speed (sympy.physics.optics.waves.TWave sympy.solvers.solvers), 846  module speed (sympy.physics.optics.waves.TWave property), 1889
method), 1313  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666  solve_linear() (in sympy.solvers.solvers), 844  solve_linear_system() (in module speed (sympy.physics.optics.medium.Medium property), 1871  solve_linear_system() (in module speed (sympy.physics.optics.waves.TWave sympy.solvers.solvers), 846  solve_linear_system_LU() (in module speeds (sympy.physics.mechanics.joint.Joint
method), 1313  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666  solve_linear() (in sympy.solvers.solvers), 844  solve_linear_system() (in module speed (sympy.physics.optics.medium.Medium property), 1871  solve_linear_system() (in module speed (sympy.physics.optics.waves.TWave sympy.solvers.solvers), 846  solve_linear_system_LU() (in module speeds (sympy.physics.mechanics.joint.Joint property), 1772
method), 1313  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666  solve_linear() (in sympy.solvers.solvers), 844  solve_linear_system() (in module sympy.physics.optics.medium.Medium property), 1871  solve_linear_system_LU() (in sympy.solvers.solvers), 846  solve_linear_system_LU() (in sympy.solvers.solvers), 847  solve_multipliers()  module SparseMatrix (in module sympy.physics.optics.wadium.Medium property), 1871  speed (sympy.physics.optics.waves.TWave property), 1889  speeds (sympy.physics.mechanics.joint.Joint property), 1772  speeds (sympy.physics.mechanics.system.SymbolicSystem
method), 1313  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666  solve_linear() (in sympy.solvers.solvers), 844  solve_linear_system() (in module speed (sympy.physics.optics.medium.Medium property), 1871  solve_linear_system() (in module speed (sympy.physics.optics.waves.TWave sympy.solvers.solvers), 846  solve_linear_system_LU() (in module speeds (sympy.physics.mechanics.joint.Joint property), 1772  solve_multipliers() speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagrangesMethedty), 1787
method), 1313  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666  solve_linear() (in sympy.solvers.solvers), 844  solve_linear_system() (in module speed (sympy.physics.optics.medium.Medium property), 1871  solve_linear_system() (in module speed (sympy.physics.optics.waves.TWave sympy.solvers.solvers), 846  solve_linear_system_LU() (in module speeds (sympy.physics.mechanics.joint.Joint property), 1772  solve_multipliers() speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagrangesMetherty), 1787
method), 1313  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666  solve_linear() (in sympy.solvers.solvers), 844  solve_linear_system() (in module speed (sympy.physics.optics.medium.Medium property), 1871  solve_linear_system() (in module speed (sympy.physics.optics.waves.TWave property), 1889  solve_linear_system_LU() (in module speeds (sympy.physics.mechanics.joint.Joint property), 1772  solve_multipliers() speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagrange.Lagrangeslpfathedty), 1787  method), 1770 spherical_bessel_fn() (in module sympy.polys.orthopolys), 2441  sympy.solvers.inequalities() (in module sympy.polys.orthopolys), 2441  sympy.solvers.inequalities), 751 spin() (sympy.geometry.polygon.RegularPolygon
method), 1313  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666  solve_linear() (in sympy.solvers.solvers), 844  solve_linear_system() (in module sympy.physics.optics.medium.Medium property), 1871  solve_linear_system() (in module sympy.physics.optics.waves.TWave sympy.solvers.solvers), 846  solve_linear_system_LU() (in module sympy.physics.mechanics.joint.Joint property), 1772  solve_multipliers() speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagrange.LagrangesMathedty), 1787     method), 1770
method), 1313  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666  solve_linear() (in module sympy.physics.optics.medium.Medium property), 1871  solve_linear_system() (in module sympy.physics.optics.waves.TWave sympy.solvers.solvers), 846  solve_linear_system_LU() (in module sympy.solvers.solvers), 847  solve_multipliers() speeds (sympy.physics.mechanics.joint.Joint property), 1772  solve_multipliers() speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagranges.Metherty), 1787     method), 1770 spherical_bessel_fn() (in module sympy.solvers.inequalities), 751 spin() (sympy.geometry.polygon.RegularPolygon method), 2292     sympy.solvers.inequalities), 751 split() (sympy.tensor.tensor.TensMul
method), 1313  solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666  solve_linear() (in sympy.solvers.solvers), 844  solve_linear_system() (in module sympy.physics.optics.waves.TWave sympy.solvers.solvers), 846  solve_linear_system_LU() (in module sympy.physics.mechanics.joint.Joint property), 1772  solve_multipliers() (in module sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagrange.LagrangesMethedty), 1787  method), 1770 spherical_bessel_fn() (in module sympy.solvers.inequalities), 751 spin() (sympy.geometry.polygon.RegularPolygon method), 2292  sympy.solvers.inequalities), 751 split() (sympy.tensor.tensor.TensMul method), 1419
method), 1313  solve_lin_sys()
method), 1313  solve_lin_sys()
method), 1313  solve_lin_sys()
method), 1313 solve_lin_sys() (in module sympy.polys.solvers), 2666 solve_linear() (in sympy.solvers.solvers), 844 solve_linear_system() (in module sympy.solvers.solvers), 846 solve_linear_system_LU() (in sympy.solvers.solvers), 846 solve_linear_system_LU() (in sympy.solvers.solvers), 847 solve_multipliers() speeds (sympy.physics.optics.waves.TWave property), 1889 solve_multipliers() speeds (sympy.physics.mechanics.joint.Joint property), 1772 solve_multipliers() speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagranges.Lagranges.Matheaty), 1787 method), 1770 spherical_bessel_fn() (in module sympy.solvers.inequalities), 751 spin() (sympy.geometry.polygon.RegularPolygon method), 2292 sympy.solvers.inequalities), 751 split() (sympy.geometry.polygon.RegularPolygon method), 2292 split() (sympy.tensor.tensor.TensMul method), 1419 sympy.solvers.inequalities), 750 split_super_sub() (in module sympy.testing.runtests), 2033 sympy.solvers.inequalities), 750 split_super_sub() (in module sympy.printing.conventions), 2183
method), 1313 solve_lin_sys() (in module SparseMatrix (in module sympy.polys.solvers), 2666 solve_linear() (in sympy.solvers.solvers), 844 solve_linear_system() (in module sympy.solvers.solvers), 846 solve_linear_system_LU() (in module sympy.solvers.solvers), 847 solve_linear_system_LU() (in module sympy.solvers.solvers), 846 solve_linear_system_LU() (in module sympy.physics.optics.waves.TWave property), 1889 speeds (sympy.physics.optics.waves.TWave spreads (sympy.physics.optics.waves.TWave property), 1772 speeds (sympy.physics.optics.waves.TWave sympy.printig.so.putics.waves.TWave property), 1772 speeds (sympy.physics.optics.waves.TWave property), 1772 speeds (sympy.physics.optics.waves.TWave property), 1772 speeds (sympy.physics.optics.waves.TWave property), 1772 speeds (sympy.physics.mechanics.joint_Joint property), 1772 speeds (sympy.physics.mechanics.joint_Joint property), 1772 speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.joint_Joint property), 1772 speeds (sympy.physics.me
method), 1313 solve_lin_sys() (in module sympy.polys.solvers), 2666 solve_linear() (in sympy.solvers.solvers), 844 solve_linear_system() (in module sympy.solvers.solvers), 846 solve_linear_system() (in module sympy.solvers.solvers), 846 solve_linear_system_LU() (in module sympy.solvers.solvers), 847 solve_multipliers() speeds (sympy.physics.mechanics.joint.Joint property), 1889 solve_multipliers() speeds (sympy.physics.mechanics.joint.Joint property), 1772 solve_multipliers() speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagrange.Lagranges/pathedy), 1787 spherical_bessel_fn() (in module sympy.solvers.inequalities), 751 split() (sympy.geometry.polygon.RegularPolygon method), 1419 split_list() (in module sympy.solvers.inequalities), 750 split_list() (in module sympy.printing.conventions), 2183 split_symbols() (in module sympy.praser), 2126
method), 1313 solve_lin_sys() (in module sympy.polys.solvers), 2666 solve_linear() (in sympy.solvers.solvers), 844 solve_linear_system() (in module sympy.solvers.solvers), 846 solve_linear_system() (in module sympy.solvers.solvers), 846 solve_linear_system_LU() (in module sympy.solvers.solvers), 847 solve_multipliers() speeds (sympy.physics.mechanics.joint.Joint property), 1889 solve_multipliers() speeds (sympy.physics.mechanics.joint.Joint property), 1772 solve_multipliers() speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagrange.Lagranges.phatpety), 1787 spherical_bessel_fn() (in module sympy.solvers.inequalities), 751 split_list() (in module sympy.solvers.inequalities), 750 split_list() (in module sympy.solvers.inequalities), 750 split_list() (in module sympy.printing.conventions), 2183 split_symbols() (in module sympy.parsing.sympy_parser), 2126
method), 1313 solve_lin_sys() (in module sympy.polys.solvers), 2666 solve_linear() (in sympy.solvers.solvers), 844 solve_linear_system() (in module sympy.solvers.solvers), 844 solve_linear_system() (in module sympy.solvers.solvers), 846 solve_linear_system() (in module sympy.solvers.solvers), 847 solve_multipliers() (in module sympy.physics.mechanics.lagrange.Lagranges)physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagrange.Lagranges)physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagranges.Lagranges)physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.polys.orthopolys), 1772 solve_poly_inequalities() (in module sympy.solvers.inequalities), 751 solve_poly_inequalities() (in module sympy.solvers.nequalities), 751 solve_poly_system() (in module sympy.solvers.nequalities), 751 solve_rational_inequalities() (in module sympy.solvers.inequalities), 750 solve_riccati() (in module sympy.solvers.ode.riccati), 805 solve_triangulated() (in module sympy.solvers.polysys), 857 solve_undetermined_coeffs() (in module sympy.parsing.sympy.parsing.sympy.parsing.sympy.parser), 2126 sympy.solvers.solvers), 847  property), 1806 sped (sympy.physics.optics.waves.TWave property), 1772 speeds (sympy.physics.mechanics.joint.Joint property), 1772 speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.polysics.mechanics.system.SymbolicSystem (sympy.polysics.mechanics.system.SymbolicSystem (sympy.polysics.optics.waves.TWave property), 1772 speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy
method), 1313 solve_lin_sys() (in sympy.polys.solvers), 2666 solve_linear() (in sympy.solvers.solvers), 844 solve_linear_system() (in module sympy.solvers.solvers), 846 solve_linear_system() (in module sympy.solvers.solvers), 846 solve_linear_system_LU() (in module sympy.solvers.solvers), 847 solve_multipliers() (in module sympy.solvers.solvers), 847 solve_puly_inequalities() (in module sympy.solvers.inequalities), 751 solve_poly_inequalities() (in module sympy.solvers.inequalities), 751 solve_poly_system() (in module sympy.solvers.inequalities), 751 solve_rational_inequalities() (in module sympy.solvers.inequalities), 750 solve_riccati() (in module sympy.solvers.ode.riccati), 805 solve_triangulated() (in module sympy.solvers.polysys), 857 solve_undetermined_coeffs() (in module sympy.solvers.solvers), 847 solve_undetermined_coeffs() (in module sympy.solvers.solvers), 846 solve_undetermined_coeffs() (in module sympy.solvers.solvers), 847 speeds (sympy.physics.optics.waves.TWave property), 1889 speeds (sympy.physics.mechanics.joint.Joint property), 1772 speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.s
method), 1313 solve_lin_sys() (in module sympy.polys.solvers), 2666 solve_linear() (in sympy.solvers.solvers), 844 solve_linear_system() (in module sympy.solvers.solvers), 844 solve_linear_system() (in module sympy.solvers.solvers), 846 solve_linear_system() (in module sympy.solvers.solvers), 847 solve_multipliers() (in module sympy.physics.mechanics.lagrange.Lagranges)physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagrange.Lagranges)physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.lagranges.Lagranges)physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.polys.orthopolys), 1772 solve_poly_inequalities() (in module sympy.solvers.inequalities), 751 solve_poly_inequalities() (in module sympy.solvers.nequalities), 751 solve_poly_system() (in module sympy.solvers.nequalities), 751 solve_rational_inequalities() (in module sympy.solvers.inequalities), 750 solve_riccati() (in module sympy.solvers.ode.riccati), 805 solve_triangulated() (in module sympy.solvers.polysys), 857 solve_undetermined_coeffs() (in module sympy.parsing.sympy.parsing.sympy.parsing.sympy.parser), 2126 sympy.solvers.solvers), 847  property), 1806 sped (sympy.physics.optics.waves.TWave property), 1772 speeds (sympy.physics.mechanics.joint.Joint property), 1772 speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.polysics.mechanics.system.SymbolicSystem (sympy.polysics.mechanics.system.SymbolicSystem (sympy.polysics.optics.waves.TWave property), 1772 speeds (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy.physics.mechanics.system.SymbolicSystem (sympy

```
2372
                                                    sympy.solvers.diophantine.diophantine),
sqf list()
                                    module
                                                    730
                      (in
       sympy.polys.polytools), 2372
                                            SquarePredicate
                                                                       (class
                                                    sympy.assumptions.predicates.matrices),
sqf list()
              (sympy.polys.polyclasses.DMP
       method), 2566
                                                    211
sqf list()
                 (sympy.polys.polytools.Poly
                                            srepr() (in module sympy.printing.repr),
       method), 2416
                                                    2178
sqf list include()
                                            sring() (in module sympy.polys.rings), 2553
       (sympy.polys.polyclasses.DMP
                                            sstr() (in module sympy.printing.str), 2178
       method), 2566
                                            sstrrepr() (in module sympy.printing.str),
                                                    2178
sqf_list_include()
       (sympy.polys.polytools.Poly method), stabilizer() (sympy.combinatorics.perm groups.Permutation
                                                    method), 328
                                            stack() (sympy.printing.pretty.stringpict.stringPict
sqf norm()
                                    module
                      (in
                                                    static method), 2187
       sympy.polys.polytools), 2371
              (sympy.polys.polyclasses.DMP
                                            Standard Cartan
                                                                       (class
sqf norm()
                                                                                      in
       method), 2566
                                                    sympy.liealgebras.cartan type),
sqf norm()
                 (sympy.polys.polytools.Poly
                                                    2340
       method), 2417
                                            standard transformations
                                                                           (in
sqf normal()
                                    module
                                                    sympy.parsing.sympy parser), 2126
                       (in
       sympy.solvers.diophantine.diophantine)start (sympy.series.sequences.RecursiveSeq
                                                    property), 640
sqf part()
                      (in
                                    module start
                                                       (sympy.series.sequences.SeqBase
       sympy.polys.polytools), 2372
                                                    property), 634
              (sympy.polys.polyclasses.DMP
                                            start
                                                    (sympy.sets.sets.Interval property),
       method). 2566
                                                    1196
sqf_part()
                 (sympy.polys.polytools.Poly
                                            starts with unity()
       method), 2418
                                                    (sympy.polys.numberfields.modules.Module
              (sympy.polys.polyclasses.DMP
                                                    method), 2723
sqr()
       method), 2566
                                            State (class in sympy.physics.quantum.state),
      (sympy.polys.polytools.Poly method),
                                                    1834
sqr()
       2418
                                            state() (sympy.physics.secondquant.FixedBosonicBasis
Sqrt (class in sympy.codegen.cfunctions),
                                                    method), 1551
       1144
                                            state() (sympy.physics.secondquant.VarBosonicBasis
                                                    method), 1561
sart()
                                    module
       sympy.functions.elementary.miscellaneoxto)te to operators()
                                                                        (in
                                                                                module
       424
                                                    sympy.physics.quantum.operatorset),
sqrt() (sympy.polys.domains.domain.Domain
                                                    1813
       method), 2517
                                            StateBase
                                                                   (class
                                                                                      in
sqrt() (sympy.polys.domains.GMPYIntegerRing
                                                    sympy.physics.quantum.state), 1834
       method), 2529
                                            states (sympy.physics.mechanics.system.SymbolicSystem
          (sympy.polys.domains.IntegerRing
                                                    property), 1787
sqrt()
                                            stationary distribution()
       method), 2528
                                                    (sympy.stats.DiscreteMarkovChain
sqrt mod()
                      (in
                                    module
       sympy.ntheory.residue ntheory),
                                                    method), 2950
       1519
                                            stationary points()
                                                                                module
                                                                        (in
                                                    sympy.calculus.util), 250
sqrt mod iter()
                         (in
                                    module
       sympy.ntheory.residue ntheory),
                                            std() (in module sympy.stats), 2970
       1520
                                            step response numerical data()
sqrtdenest()
                                                    (sympy.physics.control.control plots
                       (in
                                    module
                                                    method), 1944
       sympy.simplify.sqrtdenest), 684
             (sympy.polys.rings.PolyElement
                                            step response plot()
square()
       method), 2559
                                                    (sympy.physics.control.control plots
                                                    method), 1943
square factor()
                         (in
                                    module
```

```
stielties
                      (class
                                        in sturm() (sympy.polys.polytools.Poly method),
       sympy.functions.special.zeta functions),
                                                    2418
                                            sub (in module sympy printing pretty pretty symbology),
       519
stirling()
                      (in
                                   module
                                                    2185
       sympy.functions.combinatorial.numbers)ub() (sympy.polys.domains.domain.Domain
                                                   method), 2517
stokes vector()
                                   module
                                                        (sympy.polys.matrices.ddm.DDM
                         (in
                                           sub()
       sympy.physics.optics.polarization),
                                                    method), 2691
       1878
                                            sub() (sympy.polys.matrices.domainmatrix.DomainMatrix
stop (sympy.series.sequences.RecursiveSeq
                                                    method), 2686
       property), 640
                                            sub()
                                                        (sympy.polys.matrices.sdm.SDM
stop (sympy.series.sequences.SeqBase prop-
                                                    method), 2698
       ertv). 634
                                                          (sympy.polys.polyclasses.DMF
                                            sub()
                                                    method), 2568
Stream (class in sympy.codegen.ast), 1136
           (sympy.core.relational.Relational
                                            sub()
                                                          (sympy.polys.polyclasses.DMP
       property), 1021
                                                    method), 2566
StrictGreaterThan
                           (class
                                            sub()
                                                   (sympy.polys.polytools.Poly method),
       sympy.core.relational), 1032
                                                    2419
StrictLessThan
                                            sub ground() (sympy.polys.polyclasses.DMP
                         (class
       sympy.core.relational), 1035
                                                    method), 2567
                                                             (sympy.polys.polytools.Poly
strides (sympy.tensor.indexed.IndexedBase
                                            sub ground()
       property), 1406
                                                    method), 2419
String (class in sympy.codegen.ast), 1137
                                            subdiagram from objects()
                                                   (sympy.categories.Diagram method),
stringify expr()
                         (in
                                   module
                                                   2752
       sympy.parsing.sympy parser), 2125
                                            subfactorial
stringPict
                       (class
                                                                    (class
       sympy.printing.pretty.stringpict),
                                                   sympy.functions.combinatorial.factorials),
                                                    435
strip zero() (sympy.polys.rings.PolyElement subgroup() (sympy.combinatorics.perm groups.Permutatio
                                                    method), 329
       method), 2559
strlines() (in module sympy.utilities.misc),
                                            subgroup search()
                                                    (sympy.combinatorics.perm groups.PermutationGro
       2114
strong gens (sympy.combinatorics.perm groups.PermunethoodGrows
       property), 328
                                            SubModule
                                                                   (class
                                                                                     in
strong presentation()
                                                    sympy.polys.agca.modules), 2456
       (sympy.combinatorics.perm_groups.PerSubmathri@roup
                                                                   (class
                                                                                     in
       method), 329
                                                   sympy.polys.numberfields.modules),
strongly connected components() (in mod-
                                                    2726
       ule sympy.utilities.iterables), 2094
                                            submodule() (sympy.polys.agca.modules.Module
strongly connected components()
                                                    method), 2453
       (sympy.matrices.matrices.MatrixBase submodule() (sympy.polys.agca.modules.QuotientModule
                                                    method), 2466
       method), 1314
strongly connected components decomposition()dule()(sympy.polys.agca.modules.SubModule
       (sympy.matrices.matrices.MatrixBase
                                                    method), 2460
       method), 1315
                                            submodule from gens()
                                                    (sympy.polys.numberfields.modules.Module
StrPrinter (class in sympy.printing.str),
                                                    method), 2723
       2178
struct (class in sympy.codegen.cnodes),
                                            submodule from matrix()
                                                    (sympy.polys.numberfields.modules.Module
                                                   method), 2724
StudentT() (in module sympy.stats), 2924
sturm() (in module sympy.polys.polytools),
                                            SubQuotientModule
                                                                       (class
                                                                                     in
                                                   sympy.polys.agca.modules), 2467
       2370
sturm()
              (sympy.polys.polyclasses.DMP subresultants()
                                                                                module
                                                                     (in
       method), 2566
                                                   sympy.polys.polytools), 2365
```



<pre>subresultants() (sympy.polys.polyclasses.DM</pre>	<i>IP</i> 2185
method), 2567	sup (sympy.sets.sets.Set property), 1192
subresultants()(sympy.polys.polytools.Poly	
method), 2419	sympy.physics.quantum.grover),
Subroutine (class in sympy.codegen.fnodes),	1849
1152	superset (sympy.combinatorics.subsets.Subset
SubroutineCall (class in sympy.codegen.fnodes), 1152	property), 345 superset_size(sympy.combinatorics.subsets.Subset
Subs (class in sympy.core.function), 1051	property), 346
subs () (sympy.core.basic.Basic method), 941	<pre>supplement_a_subspace() (in module</pre>
subs() (sympy.matrices.common.MatrixComm	
method), 1354	2740
subs() (sympy.physics.vector.dyadic.Dyadic method), 1650	support() (sympy.combinatorics.permutations.Permutation method), 282
	supports (sympy.physics.continuum mechanics.truss.Truss
method), 1646	property), 2027
Subset (class in sympy.combinatorics.subsets),	SurfaceBaseSeries (class in
340	sympy.plotting.plot), 2867
subset (sympy.combinatorics.subsets.Subset	
property), 344	sympy.plotting.plot), 2867
	SWAP (in module sympy.physics.quantum.gate),
method), 2464 subset() (sympy.polys.agca.modules.Module	1845 swap_point() (sympy.physics.quantum.circuitplot.CircuitPl
method), 2453	method), 1841
subset from bitlist()	SwapGate (class in
(sympy.combinatorics.subsets.Subset	sympy.physics.quantum.gate), 1845
class method), 345	<pre>swinnerton_dyer_poly() (in module</pre>
<pre>subset_indices()(sympy.combinatorics.subs</pre>	
class method), 345	sylow_subgroup()(sympy.combinatorics.perm_groups.Perr
subsets() (in module)	method), 330
sympy.utilities.iterables), 2096	symarray() (in module
SubsSet (class in sympy.series.gruntz), 624	sympy.matrices.dense), 1323
substitute_dummies() (in module	symb_2txt (in module sympy.printing.pretty.pretty symbology),
sympy.physics.secondquant), 1564 Sum (class in sympy.concrete.summations),	2185
900	Symbol (class in sympy.core.symbol), 976
<pre>sum of four squares() (in module</pre>	symbol (sympy.physics.second quant.AntiSymmetricTensor
sympy.solvers.diophantine.diophantine	
735	SymbolicSystem (class in
<pre>sum_of_powers()</pre>	sympy.physics.mechanics.system),
sympy.solvers.diophantine.diophantine	
736	symbols() (in module sympy.core.symbol),
sum_of_squares() (in module	978
737	e)symmetric() (sympy.combinatorics.generators method), 287
	<pre>symmetric_difference()</pre>
sympy.solvers.diophantine.diophantine	
734	symmetric_poly() (in module
SumApprox (class in	sympy.polys.specialpolys), 2438
sympy.codegen.approximations), 1123	symmetric_residue() (in module
	sympy.ntheory.modular), 1509 SymmetricDifference (class in
sympy.concrete.summations), 915	sympy.sets.sets), 1201
sup (in module sympy.printing.pretty.pretty sy	



sympy.combinatorics.named groups), module, 1159 352 sympy.codegen.matrix nodes SymmetricPredicate (class module, 1121 in sympy.assumptions.predicates.matrices ympy.codegen.pyutils 203 module, 1159 symmetrize() (in module sympy.codegen.rewriting sympy.polys.polyfuncs), 2425 module, 1118 sympify() (in module sympy.core.sympify), sympy.combinatorics.generators 918 module, 287 sympy.combinatorics.graycode sympy.abc module, 884 module, 347 sympy.algebras sympy.combinatorics.group\_constructs module, 885 module, 363 sympy.assumptions sympy.combinatorics.group numbers module, 186 module, 355 sympy.assumptions.ask sympy.combinatorics.named groups module, 191 module, 352 sympy.combinatorics.partitions sympy.assumptions.assume module, 193 module, 251 sympy.assumptions.predicates sympy.combinatorics.perm groups module, 200 module, 288 sympy.assumptions.refine sympy.combinatorics.permutations module, 197 module, 257 sympy.calculus sympy.combinatorics.polyhedron module, 233 module, 332 sympy.calculus.euler sympy.combinatorics.prufer module, 233 module, 335 sympy.calculus.finite\_diff sympy.combinatorics.subsets module, 240 module, 340 sympy.calculus.singularities sympy.combinatorics.tensor can module, 234 module, 365 sympy.calculus.util sympy.combinatorics.testutil module, 244 module, 363 sympy.categories sympy.combinatorics.util module, 2742 module, 356 sympy.categories.diagram drawing sympy.core.add module, 2752 module, 1013 sympy.codegen.algorithms sympy.core.assumptions module, 1157 module, 923 sympy.codegen.approximations sympy.core.basic module, 1122 module, 927 sympy.codegen.ast sympy.core.cache module, 1124 module, 927 sympy.codegen.cfunctions sympy.core.containers module, 1143 module, 1068 sympy.codegen.cnodes sympy.core.core module, 1148 module, 945 sympy.codegen.cutils sympy.core.evalf module, 1159 module, 1065 sympy.codegen.cxxnodes sympy.core.expr module, 1149 module, 947 sympy.codegen.fnodes sympy.core.exprtools module, 1149 module, 1071 sympy.codegen.futils sympy.core.function

module, 1039 module, 514 sympy.core.kind sympy.geometry.curve module, 2247 module, 1073 sympy.core.mod sympy.geometry.ellipse module, 1018 module, 2253 sympy.core.mul sympy.geometry.entity module. 1009 module, 2194 sympy.core.multidimensional sympy.geometry.line module, 1039 module, 2216 sympy.core.numbers sympy.geometry.plane module, 981 module, 2303 sympy.core.power sympy.geometry.point module, 1005 module, 2202 sympy.core.random sympy.geometry.polygon module, 1077 module, 2273 sympy.core.relational sympy.geometry.util module, 1018 module, 2197 sympy.core.singleton sympy.holonomic module, 945 module, 2312 sympy.core.symbol sympy.integrals module, 976 module, 575 sympy.core.sympify sympy.integrals.intpoly module, 918 module, 617 sympy.core.traversal sympy,integrals.meijerint module, 1080 module, 568 sympy.crypto.crypto sympy.integrals.meijerint doc module, 2762 module, 564 sympy.diffgeom sympy.integrals.transforms module, 2799 module, 576 sympy.discrete sympy.interactive module, 1083 module, 2116 sympy.discrete.convolutions sympy.interactive.printing module, 1089 module, 2119 sympy.discrete.transforms sympy.interactive.session module, 1083 module, 2116 sympy.functions sympy.liealgebras module, 381 module, 2326 sympy.functions.special.bessel sympy.logic module, 1160 module, 497 sympy.functions.special.beta functions sympy.logic.inference module, 470 module, 1184 sympy.functions.special.elliptic integrasympy.matrices module, 526 module, 1217 sympy.functions.special.error functions sympy.matrices.common module, 471 module, 1327 sympy.functions.special.gamma functions sympy.matrices.expressions module, 459 module, 1369 sympy.functions.special.mathieu functionsympy.matrices.expressions.blockmatrix module, 529 module, 1380 sympy.functions.special.polynomials sympy.matrices.immutable module, 532 module, 1369 sympy.functions.special.singularity funcsximpnys.matrices.matrices module, 456 module, 1218 sympy.functions.special.zeta functions sympy.matrices.sparse

module, 1364 module, 1770 sympy.matrices.sparsetools sympy.physics.mechanics.jointsmethod module, 1365 module, 1780 sympy.physics.mechanics.kane sympy.ntheory.bbp pi module, 1531 module, 1764 sympy.ntheory.continued fraction sympy.physics.mechanics.lagrange module, 1523 module. 1767 sympy.ntheory.digits sympy.physics.mechanics.linearize module, 1526 module, 1787 sympy.ntheory.ecm sympy.physics.mechanics.particle module, 1531 module, 1743 sympy.ntheory.egyptian fraction sympy.physics.mechanics.rigidbody module, 1529 module, 1746 sympy.ntheory.factor sympy.physics.mechanics.system module, 1486 module, 1783 sympy.ntheory.generate sympy.physics.optics.gaussopt module, 1476 module, 1857 sympy.physics.optics.medium sympy.ntheory.modular module, 1509 module, 1870 sympy.physics.optics.polarization sympy.ntheory.multinomial module, 1511 module, 1871 sympy.ntheory.partitions sympy.physics.optics.utils module, 1513 module, 1880 sympy.physics.optics.waves sympy.ntheory.primetest module, 1513 module, 1887 sympy.ntheory.qs sympy.physics.paulialgebra module, 1532 module, 1539 sympy.ntheory.residue\_ntheory sympy.physics.qho 1d module, 1539 module, 1518 sympy.parsing sympy.physics.quantum.anticommutator module, 2122 module, 1791 sympy.parsing.sym\_expr sympy.physics.quantum.cartesian module, 2130 module, 1801 sympy.physics.quantum.cg sympy.physics module, 1533 module, 1792 sympy.physics.continuum mechanics.beam sympy.physics.quantum.circuitplot module, 1949 module, 1840 sympy.physics.continuum mechanics.truss sympy.physics.quantum.commutator module, 2021 module, 1795 sympy.physics.control sympy.physics.quantum.constants module, 1890 module, 1796 sympy.physics.control.lti sympy.physics.quantum.dagger module. 1891 module, 1797 sympy.physics.hep.gamma\_matrices sympy.physics.quantum.gate module, 1589 module, 1842 sympy.physics.quantum.grover sympy.physics.hydrogen module, 1533 module, 1847 sympy.physics.quantum.hilbert sympy.physics.matrices module, 1537 module, 1802 sympy.physics.quantum.innerproduct sympy.physics.mechanics module, 1675 module, 1798 sympy.physics.mechanics.body sympy.physics.quantum.operator module, 1756 module, 1807 sympy.physics.mechanics.joint sympy.physics.quantum.operatorset

module, 1812 module, 2642 sympy.physics.quantum.piab sympy.polys.solvers module, 2666 module, 1857 sympy.physics.quantum.qapply sympy.printing.aesaracode module, 1814 module, 2166 sympy.physics.quantum.qft sympy.printing.c module. 1850 module, 2140 sympy.physics.quantum.qubit sympy.printing.codeprinter module, 1850 module, 2183 sympy.physics.quantum.represent sympy.printing.conventions module, 1815 module, 2183 sympy.physics.quantum.shor sympy.printing.cxx module, 1856 module, 2144 sympy.printing.fortran sympy.physics.quantum.spin module, 1820 module, 2147 sympy.physics.quantum.state sympy.printing.gtk module, 1832 module, 2170 sympy.physics.quantum.tensorproduct sympy.printing.jscode module, 1799 module, 2155 sympy.physics.secondquant sympy.printing.julia module, 1542 module, 2157 sympy.physics.sho sympy.printing.lambdarepr module, 1541 module, 2170 sympy.physics.units.dimensions sympy.printing.latex module, 2170 module, 1584 sympy.physics.units.prefixes sympy.printing.maple module, 1586 module, 2154 sympy.physics.units.quantities sympy.printing.mathematica module, 1587 module, 2152 sympy.physics.units.unitsystem sympy.printing.mathml module, 1587 module, 2175 sympy.physics.units.util sympy.printing.octave module, 1588 module, 2160 sympy.physics.vector sympy.printing.precedence module, 1592 module, 2184 sympy.physics.vector.functions sympy.printing.pretty module, 1659 module, 2139 sympy.physics.vector.point sympy.printing.pretty.pretty module, 1652 module, 2139 sympy.physics.wigner sympy.printing.pretty.pretty symbology module, 1566 module, 2184 sympy.plotting.plot sympy.printing.pretty.stringpict module, 2820 module, 2186 sympy.plotting.pygletplot sympy.printing.preview module, 2869 module, 2181 sympy.polys sympy.printing.printer module, 2360 module, 2135 sympy.polys.numberfields.modules sympy.printing.pycode module, 2716 module, 2176 sympy.polys.numberfields.subfield sympy.printing.python module, 2711 module, 2177 sympy.polys.polyconfig sympy.printing.rcode module, 2643 module, 2144 sympy.polys.polyoptions sympy.printing.repr

module, 2177	module, 2981
sympy.printing.rust	sympy.stats.crv_types
module, 2164	module, 2981
sympy.printing.str	<pre>sympy.stats.Die() (in module</pre>
module, 2178	sympy.stats.crv types), 2982
sympy.printing.tree	sympy.stats.frv
module, 2178	module, 2981
sympy.sets.conditionset	sympy.stats.frv_types
module, 1215	module, 2981
sympy.sets.fancysets	sympy.stats.Normal() (in module
module, 1203	sympy.stats.crv types), 2982
sympy.sets.powerset	sympy.stats.rv
module, 1213	module, 2980
sympy.sets.sets	sympy.tensor
module, 1185	module, 1387
sympy.simplify.combsimp	sympy.tensor.array
module, 683	module, 1387
sympy.simplify.cse_main	sympy.tensor.array.expressions
module, 685	module, 1395
sympy.simplify.epathtools	sympy.tensor.index_methods
module, 688	module, 1406
sympy.simplify.hyperexpand	sympy.tensor.indexed
module, 687	module, 1398
sympy.simplify.hyperexpand doc	sympy.tensor.tensor
module, 699	module, 1409
sympy.simplify.powsimp	sympy.tensor.toperators
module, 680	module, 1423
sympy.simplify.radsimp	sympy.testing
module, 670	module, 2027
sympy.simplify.ratsimp	sympy.testing.pytest
module, 678	module, 2027
sympy.simplify.simplify	sympy.testing.randtest
module, 154	module, 2030
sympy.simplify.sqrtdenest	sympy.testing.runtests
module, 684	· · ·
	module, 2030
sympy.simplify.trigsimp	sympy.utilities
module, 679	module, 2038
sympy.solvers	sympy.utilities.autowrap
module, 836	module, 2039
sympy.solvers.inequalities	sympy.utilities.codegen
module, 750	module, 2046
sympy.solvers.ode	sympy.utilities.decorator
module, 755	module, 2057
sympy.solvers.ode.ode	sympy.utilities.enumerative
module, 822	module, 2060
sympy.solvers.pde	sympy.utilities.exceptions
module, 835	module, 2066
sympy.solvers.recurr	sympy.utilities.iterables
module, 853	module, 2071
sympy.solvers.solveset	sympy.utilities.lambdify
module, 858	module, 2099
sympy.stats	sympy.utilities.memoization
module, 2873	module, 2110
sympy.stats.crv	sympy.utilities.misc
Jympy i J La L J i C I V	shubh actitics impsc

module, 2110	take() (in module sympy.utilities.iterables),
sympy.utilities.pkgdata module,2115	2096 tan (class in sympy.functions.elementary.trigonometric),
sympy.utilities.source	391
module, 2116	<pre>tangent_lines()(sympy.geometry.ellipse.Ellipse</pre>
sympy.utilities.timeutils	method), 2268
module, 2116	tanh (class in sympy.functions.elementary.hyperbolic),
sympy.vector	403
module, 1425 sympy_deprecation_warning() (in module	targets (sympy.physics.quantum.gate.CGate property), 1843
sympy.utilities.exceptions), 2067	targets (sympy.physics.quantum.gate.CNotGate
sympy eqs to ring() (in module	property), 1843
sympy.polys.solvers), 2668	targets (sympy.physics.quantum.gate.Gate
SymPyDeprecationWarning, 2066	property), 1844
SymPyDocTestFinder (class in	targets (sympy.physics.quantum.gate.UGate
sympy.testing.runtests), 2030	property), 1846
SymPyDocTestRunner (class in	targets (sympy.physics.quantum.grover.OracleGate
sympy.testing.runtests), 2030 SymPyExpression (class in	<pre>property), 1848 taxicab distance()</pre>
sympy.parsing.sym expr), 2130	(sympy.geometry.point.Point
SymPyOutputChecker (class in	method), 2208
sympy.testing.runtests), 2031	taylor_term() (sympy.core.expr.Expr
sympytestfile() (in module	method), 975
sympy.testing.runtests), 2034	taylor_term() (sympy.functions.elementary.exponential.ex
SymPyTestResults (class in	static method), 412
sympy.testing.runtests), 2031	taylor_term() (sympy.functions.elementary.exponential.log
sys1 (sympy.physics.control.lti.Feedback	static method), 414
property), 1909 sys1 (sympy.physics.control.lti.MIMOFeedback	taylor_term() (sympy.functions.elementary.hyperbolic.csc static method), 405
property), 1931	taylor_term() (sympy.functions.elementary.hyperbolic.sini
sys2 (sympy.physics.control.lti.Feedback	static method), 402
property), 1909	TC() (sympy.polys.polyclasses.ANP method),
sys2 (sympy.physics.control.lti.MIMOFeedback	
property), 1932	TC() (sympy.polys.polyclasses.DMP method),
syzygy_module()(sympy.polys.agca.modules.S	SubModule 61 TC() (communication polytople Polytople Polytople)
method), 2460	TC() (sympy.polys.polytools.Poly method), 2380
Т	TensAdd (class in sympy.tensor.tensor), 1415
T (in module sympy.physics.quantum.gate),	TensExpr (class in sympy.tensor.tensor), 1413
1845	TensMul (class in sympy.tensor.tensor), 1416
T (sympy.matrices.common.MatrixCommon	tensor_heads() (in module
property), 1327	sympy.tensor.tensor), 1413
T (sympy.matrices.expressions.MatrixExpr	tensor_product_simp() (in module
property), 1370	sympy.physics.quantum.tensorproduct),
t (sympy.physics.quantum.shor.CMod prop-	1800 tensorcontraction() (in module
erty), 1856 T (sympy.polys.numberfields.modules.PowerBa	· · · · · · · · · · · · · · · · · · ·
property), 2732	tensordiagonal() (in module
table() (sympy.matrices.matrices.MatrixBase	sympy.tensor.array), 1394
method), 1317	TensorHead (class in sympy.tensor.tensor),
tail_degree()(sympy.polys.rings.PolyElemen	t_ 1411
method), 2559	TensorIndex (class in sympy.tensor.tensor),
tail_degrees()(sympy.polys.rings.PolyEleme	nt 1410
method), 2559	TensorIndexType (class in

sympy.tensor.tensor TensorPowerHilbertSpac sympy.physics.qua	ce (class in	sympy.utilities.decorator), 2060 n threaded_factory() (in module sympy.utilities.decorator), 2060
1805 TensorProduct (class in		time (sympy.physics.quantum.state.TimeDepState
2811	-9 1-9 119 11	time_derivative() (in module
TensorProduct sympy.physics.qua	(class in antum.tensorproduc	ct), 1669
1799 tensorproduct()	(in module	time_period(sympy.physics.optics.waves.TWave property), 1889
<pre>sympy.tensor.arrag TensorProductHilbertSp</pre>		timed() (in module sympy.utilities.timeutils), 1 2116
sympy.physics.quo 1806	antum.hilbert),	TimeDepBra (class in sympy.physics.quantum.state), 1834
TensorSymmetry	(class in	n TimeDepKet (class in
sympy.tensor.tens	or), 1420	sympy.physics.quantum.state), 1835
tensorsymmetry()	(in module	e TimeDepState (class in
sympy.tensor.tens	or), 1421	sympy.physics.quantum.state), 1836
1421		, tiny (sympy.codegen.ast.FloatType prop- erty), 1132
sympy.logic.boolal	lg), 1181	e to_alg_num() (sympy.polys.domains.AlgebraicField method), 2545
method), 2187		rin <b>gpi<u>c</u>a.bgring:P(</b> ¢t(sympy.polys.numberfields.modules.PowerBo method), 2732
method), 2567		P to_algebraic_integer() (sympy.core.numbers.AlgebraicNumber
terms()(sympy.polys.poly	ytools.Poly method),	
	s.rings.PolyElement	
<pre>method), 2560 terms_gcd() (ii)</pre>	n module	to_anf() (in module sympy.logic.boolalg),
<pre>sympy.polys.polyte terms_gcd() (sympy.pol</pre>		to_ANP() (sympy.polys.numberfields.modules.PowerBasisE method), 2732
method), 2567 terms_gcd() (sympy.	polys.polytools.Poly	to_axis_angle() (sympy.algebras.Quaternion y method), 896
method), 2420 termwise() (sympy.		to_cnf() (in module sympy.logic.boolalg),
method), 2420 test() (in module symp	py.testing.runtests),	to_ddm() (sympy.polys.matrices.sdm.SDM , method), 2698
2035 test derivative numeri	_	to_dense() (sympy.polys.matrices.domainmatrix.DomainM
sympy.core.randor test_factor() (sympy.po	m), 1078	to_dict() (sympy.polys.polyclasses.ANP
method), 2709 TextBackend (class in s		to_dict() (sympy.polys.polyclasses.DMP
2869		<pre>to_dnf() (in module sympy.logic.boolalg),</pre>
textplot() (in sympy.plotting.tex	ktplot), 2872	to_exact() (sympy.polys.polyclasses.DMP
TGate (class in sympy.phys 1845		to_exact() (sympy.polys.polytools.Poly
sympy.physics.opt	lass in cics.gaussopt),	$\verb"to_expr()" (sympy.holonomic.holonomic.HolonomicFunction")" and the property of the propert$
1865	, ,	method), 2323
threaded() (in	n module	e to_expr() (sympy.physics.control.lti.Parallel

method), 1906	method), 2421
	to_root() (sympy.core.numbers.AlgebraicNumber
method), 1902	method), 993
to_expr() (sympy.physics.control.lti.Transferi	
method), 1898	(sympy.algebras.Quaternion
to_field()(sympy.polys.matrices.domainmat	MX.DOMA <b>mellaloux</b> , 896
method), 2687 to_field() (sympy.polys.polyclasses.DMP	to_sequence() (sympy.holonomic.holonomic.HolonomicFurmethod), 2319
method), 2567	to_sparse() (sympy.polys.matrices.domainmatrix.DomainN
to_field() (sympy.polys.polytools.Poly	method), 2687
method), 2421	to_sympy() (sympy.polys.domains.AlgebraicField
to_hyper() (sympy.holonomic.holonomic.Holo	pnomicFun <b>ættbo</b> d), 2545
method), 2321	to_sympy()(sympy.polys.domains.ComplexField
to_int_repr() (in module	method), 2546
sympy.logic.boolalg), 1183	to_sympy()(sympy.polys.domains.domain.Domain
to_linearizer()(sympy.physics.mechanics.k	
method), 1767	to_sympy()(sympy.polys.domains.ExpressionDomain
to_linearizer()(sympy.physics.mechanics.lo	agrange.I <b>mgthod</b> )esM <b>ē</b> thod
method), 1770	to_sympy()(sympy.polys.domains.FiniteField
to_list() (sympy.polys.matrices.sdm.SDM	method), 2525
method), 2699	to_sympy() (sympy.polys.domains.FractionField
to_list() (sympy.polys.polyclasses.ANP method), 2569	method), 2549
to_list() (sympy.polys.polyclasses.DMP	to_sympy() (sympy.polys.domains.gaussiandomains.Gaussiandomains.gaussiandomain
method), 2567	to_sympy() (sympy.polys.domains.GMPYIntegerRing
to_matrix() (sympy.physics.vector.dyadic.Dya	idic method) 2529
method), 1650	to_sympy() (sympy.polys.domains.GMPYRationalField
to_matrix()(sympy.physics.vector.vector.Vec	tor method), 2532
method), 1646	to sympy()(sympy.polys.domains.IntegerRing
to_Matrix()(sympy.polys.matrices.domainma	atrix.Dom <b>nielMad</b> hj.x2528
method), 2686	to_sympy()(sympy.polys.domains.PolynomialRing
to_matrix() (sympy.vector.dyadic.Dyadic	method), 2548
method), 1459	to_sympy()(sympy.polys.domains.RationalField
to_matrix() (sympy.vector.vector.Vector	method), 2531
method), 1457 to_meijerg() (sympy.holonomic.holonomic.Ho	to_sympy() (sympy.polys.domains.RealField
method), 2322	to_sympy_dict() (sympy.polys.polyclasses.ANP
to_nnf() (in module sympy.logic.boolalg),	method), 2569
1173	to_sympy_dict()(sympy.polys.polyclasses.DMP
to number field() (in module	method), 2567
sympy.polys.numberfields.subfield),	to_sympy_list()(sympy.polys.polyclasses.ANP
2714	method), 2569
to_parent() (sympy.polys.numberfields.modu	letso <u>M</u> sydfuplye <u>E</u> llietste(n)t(sympy.polys.polyclasses.DMP
method), 2731	method), 2567
to_primitive_element()	to_tree() (sympy.combinatorics.prufer.Prufer
(sympy.core.numbers.AlgebraicNumbe	
method), 992	to_tuple() (sympy.polys.polyclasses.ANP
to_prufer() (sympy.combinatorics.prufer.Pru	
static method), 338	to_tuple() (sympy.polys.polyclasses.DMP
to_rational() (sympy.polys.domains.RealFie method), 2546	ld method), 2567 todod() (sympy.matrices.common.MatrixCommon
to_ring() (sympy.polys.polyclasses.DMP	method), 1354
method), 2567	todok() (sympy.matrices.common.MatrixCommon
to_ring() (sympy.polys.polytools.Poly	method), 1354
_ 50,	//

together() (in module sympy.polys.rationaltools), 2442	TranscendentalPredicate (class in sympy.assumptions.predicates.sets),
<pre>together() (sympy.core.expr.Expr method),</pre>	232
975	TransferFunction (class in
Token (class in sympy.codegen.ast), 1137	sympy.physics.control.lti), 1891
tolist() (sympy.matrices.common.MatrixCom	
method), 1355	sympy.physics.control.lti), 1910
	transform() (sympy.diffgeom.CoordSystem
sympy.utilities.iterables), 2096	method), 2805
topological_sort()	transform() (sympy.geometry.point.Point2D
(sympy.codegen.ast.CodeBlock class	method), 2210
method), 1129	transform() (sympy.geometry.point.Point3D
torsional moment()	method), 2214
	benam.\$Foanm\$P(sympy.integrals.integrals.Integral
method), 1998	method), 604
total_degree() (sympy.polys.polyclasses.DMF	
method), 2567	method), 2567
total degree() (sympy.polys.polytools.Poly	
method), 2421	method), 2422
totient (class in sympy.ntheory.factor_),	transform_variable
1501	(sympy.integrals.transforms.IntegralTransform
totientrange() (sympy.ntheory.generate.Siev	
method), 1478	transformation() (sympy.diffgeom.CoordSystem
tp (sympy.polys.domains.domain.Domain	method), 2805
property), 2519	transformation_to_DN() (in module
TRO() (in module sympy.simplify.fu), 704	sympy.solvers.diophantine.diophantine),
TR1() (in module sympy.simplify.fu), 704	727
TR10() (in module sympy.simplify.fu), 707	transformation_to_normal() (in module
TR10i() (in module sympy.simplify.fu), 707	sympy.solvers.diophantine.diophantine),
TR11() (in module sympy.simplify.fu), 708	728
TR111() (in module sympy.simplify.fu), 711	transition_probabilities
TR12() (in module sympy.simplify.fu), 708	(sympy.stats.DiscreteMarkovChain
TR12i() (in module sympy.simplify.fu), 709	property), 2951
TR13() (in module sympy.simplify.fu), 709	transitivity_degree
TR14() (in module sympy.simplify.fu), 711	(sympy.combinatorics.perm_groups.PermutationGro
TR15() (in module sympy.simplify.fu), 711	property), 331
TR16() (in module sympy.simplify.fu), 711	translate() (in module sympy.utilities.misc),
TR2() (in module sympy.simplify.fu), 704	2114
TR22() (in module sympy.simplify.fu), 712	translate() (sympy.geometry.curve.Curve
TR2i() (in module sympy.simplify.fu), 704	method), 2252
TR3() (in module sympy.simplify.fu), 705	translate() (sympy.geometry.entity.GeometryEntity
TR4() (in module sympy.simplify.fu), 705	method), 2197
TR5() (in module sympy.simplify.fu), 705	translate() (sympy.geometry.point.Point2D
TR6() (in module sympy.simplify.fu), 706	method), 2210
TR7() (in module sympy.simplify.fu), 706	translate() (sympy.geometry.point.Point3D
TR8() (in module sympy.simplify.fu), 706	method), 2214
TR9() (in module sympy.simplify.fu), 707	transmissive filter() (in module
Trace (class in sympy.matrices.expressions),	sympy.physics.optics.polarization),
1375	1879
trace() (sympy.matrices.common.MatrixComm	
method), 1355	sympy.matrices.expressions), 1375
trailing() (in module	transpose() (sympy.matrices.common.MatrixCommon
sympy.ntheory.factor ), 1488	method), 1355
transcendental, 924	transpose()(sympy.matrices.expressions.blockmatrix.Blo



```
method), 1384
                                             Tuple (class in sympy.core.containers), 1068
transpose() (sympy,physics.control.lti.TransfertEuphetionMattrix(sympy.core.containers.Tuple
                                                    method), 1069
       method). 1922
transpose() (sympy.polys.matrices.domainmatFixpDekinigh Matrix in sympy.core.containers),
       method), 2688
                                                     1069
transpose() (sympy.polys.matrices.sdm.SDM Twave (class in sympy.physics.optics.waves),
       method), 2699
                                                     1887
transpositions() (sympy.combinatorics.permatuationus) Perbaxtationypy.physics.quantum.circuitplot.Circu
       method), 283
                                                     method). 1841
transverse magnification() (in module twoform to matrix()
                                                                        (in
                                                                                 module
       sympy.physics.optics.utils), 1886
                                                    sympy.diffgeom), 2818
Trapezoidal() (in module sympy.stats), 2926
                                             TwoQubitGate
                                                                      (class
                                                                                      in
tree() (in module sympy.printing.tree), 2179
                                                    sympy.physics.quantum.qate), 1845
                      (in
                                             Type (class in sympy.codegen.ast), 1138
tree cse()
                                    module
       sympy.simplify.cse_main), 687
                                             TypeA (class in sympy.liealgebras.type a),
tree repr(sympy.combinatorics.prufer.Prufer
                                                     2328
       property), 339
                                             TypeB
                                                    (class in sympy.liealgebras.type b),
Triangle (class in sympy.geometry.polygon),
                                                    2330
                                             TypeC (class in sympy.liealgebras.type c),
                                                    2331
Triangular() (in module sympy.stats), 2927
                                                    (class in sympy.liealgebras.type d),
TriangularPredicate
                            (class
                                         in TypeD
       sympy.assumptions.predicates.matrices),
                                                    2333
       214
                                             TypeE (class in sympy.liealgebras.type e),
tribonacci
                       (class
                                                    2334
                                         in
       sympy.functions.combinatorial.numbers\(\text{TypeF}\)
                                                    (class in sympy.liealgebras.type f),
       438
                                                     2336
TribonacciConstant
                            (class
                                             TypeG
                                                    (class in sympy.liealgebras.type g),
       sympy.core.numbers), 1003
                                                     2337
                      (class
trigamma
                                         ìn
       sympy.functions.special.gamma functions),
       465
                                             u (sympy.physics.mechanics.jointsmethod.JointsMethod
                                    module
trigintegrate()
                         (in
                                                    property), 1783
       sympy.integrals.trigonometry), 589
                                             U() (in module sympy.printing.pretty.pretty symbology),
trigsimp()
                      (in
                                    module
                                                     2184
       sympy.simplify.triqsimp), 679
                                             udivisor count()
                                                                                 module
                                                                       (in
trigsimp() (sympy.core.expr.Expr method).
                                                    sympy.ntheory.factor), 1499
       975
                                             udivisor sigma
                                                                       (class
                                                                                      in
TRmorrie() (in module sympy.simplify.fu),
                                                    sympy.ntheory.factor), 1503
       709
                                             udivisors()
                                                                                 module
                                                                    (in
TRpower() (in module sympy.simplify.fu), 712
                                                    sympy.ntheory.factor), 1499
trunc() (in module sympy.polys.polytools).
                                             UDLdecomposition()
       2369
                                                     (sympy.matrices.expressions.blockmatrix.BlockMat
trunc()
              (sympy.polys.polyclasses.DMP
                                                     method), 1382
       method), 2567
                                             ufuncify()
                                                                                 module
                                                                   (in
trunc() (sympy.polys.polytools.Poly method),
                                                     sympy.utilities.autowrap), 2043
       2422
                                             UfuncifyCodeWrapper
                                                                          (class
                                                                                      in
truncate() (sympy.series.formal.FormalPowerSeries sympy.utilities.autowrap), 2040
       method), 650
                                             UGate (class in sympy.physics.quantum.gate),
truncate() (sympy.series.fourier.FourierSeries
                                                     1845
       method), 643
                                             uncouple()
                                                                                 module
Truss (class in sympy.physics.continuum mechanics.truss)mpy.physics.quantum.spin), 1830
       2021
                                             UndefinedKind (in module sympy.core.kind),
truth table()
                                    module
                        (in
                                                     1074
       sympy.logic.boolalg), 1179
```

	UnivariatePolynomialError (class in
sympy.assumptions.assume), 196	sympy.polys.polyerrors), 2644
Unequality (class in sympy.core.relational),	UniversalSet (class in sympy.sets.sets), 1202
1031	unrad() (in module sympy.solvers.solvers), 851
UnevaluatedExpr ( <i>class in sympy.core.expr</i> ), 975	unrank() (sympy.combinatorics.graycode.GrayCode
unflatten() (in module	class method), 350
sympy.utilities.iterables), 2098	unrank() (sympy.combinatorics.prufer.Prufer
UnificationFailed (class in	class method), 339
sympy.polys.polyerrors), 2644	unrank_binary()(sympy.combinatorics.subsets.Subset
Uniform() (in module sympy.stats), 2928	class method), 346
UniformSum() (in module sympy.stats), 2929	unrank_gray()(sympy.combinatorics.subsets.Subset
unify()(sympy.polys.domains.domain.Domain	
method), 2519	unrank_lex() (sympy.combinatorics.permutations.Permuta
unify()(sympy.polys.matrices.domainmatrix.L	
method), 2688	unrank_nonlex() (sympy.combinatorics.permutations.Perm
unify() (sympy.polys.numberfields.modules.M	
method), 2731 unify() (sympy.polys.polyclasses.ANP	unrank_trotterjohnson() (sympy.combinatorics.permutations.Permutation
method), 2569	class method), 284
unify() (sympy.polys.polyclasses.DMP	UnsignedIntType (class in
method), 2567	sympy.codegen.ast), 1140
unify()(sympy.polys.polytools.Poly method),	update() (sympy.physics.quantum.circuitplot.CircuitPlot
2422	method), 1841
union (class in sympy.codegen.cnodes), 1149	upper (sympy.physics.second quant.AntiSymmetricTensor
Union (class in sympy.sets.sets), 1197 union() (sympy.polys.agca.ideals.Ideal/	property), 1545 upper (sympy.tensor.indexed.Idx property),
method), 2464	1401
union() (sympy.polys.agca.modules.SubModul	
method), 2461	(sympy.matrices.matrices.MatrixBase
union() (sympy.series.gruntz.SubsSet	method), 1317
method), 625	<pre>upper_triangular()</pre>
union() (sympy.sets.sets.Set method), 1193	(sympy.matrices.common.MatrixCommon
uniq() (in module sympy.utilities.iterables),	method), 1356
2098	upper_triangular_solve()
unit (sympy.geometry.point.Point property),	(sympy.matrices.dense.DenseMatrix
2208 unit (sympy.polys.polytools.Poly property),	method), 1363
2423	(sympy.matrices.matrices.MatrixBase
UnitaryOperator (class in	method), 1318
sympy.physics.quantum.operator),	uppergamma (class in
1812	sympy.functions.special.gamma functions),
UnitaryPredicate (class in	466
sympy.assumptions.predicates.matrice	
206	sympy.assumptions.predicates.matrices),
UnitSystem (class in	208
sympy.physics.units.unitsystem),	use (class in sympy.codegen.fnodes), 1156
1587	use() (in module sympy.core.traversal), 1082
UnitTriangularPredicate (class in sympy.assumptions.predicates.matrice.	use_rename (class in sympy.codegen.fnodes), s), 1156
215	using (class in sympy.codegen.cxxnodes),
Univariate (class in	1149
sympy.solvers.diophantine.diophantine	
746	



V	vec() (sympy.matrices.common.MatrixCommon
v1pt_theory()(sympy.physics.vector.point.Poi method), 1657	int method), 1357 vech() (sympy.matrices.common.MatrixCommon
v2pt_theory() (sympy.physics.vector.point.Poi method), 1658	int method), 1357 Vector (class in sympy.physics.vector.vector),
valuation() (sympy.polys.numberfields.prime method), 2709	
values() (sympy.core.containers.Dict	vector_coplanar() (sympy.algebras.Quaternion class
method), 1071 values() (sympy.matrices.common.MatrixCom	11 1) 000
method), 1357 var (sympy.physics.control.lti.Feedback	sympy.vector.integrals), 1475 vector_part() (sympy.algebras.Quaternion
property), 1910 var (sympy.physics.control.lti.MIMOFeedback	method), 898
property), 1932	vectorize (class in sympy.core.multidimensional), 1039
var (sympy.physics.control.lti.MIMOParallel property), 1927	vectors_in_basis() (in module
var (sympy.physics.control.lti.MIMOSeries property), 1924	sympy.diffgeom), 2817 vel() (sympy.physics.vector.point.Point
var (sympy.physics.control.lti.Parallel prop- erty), 1906	<pre>method), 1658 verify_numerically() (in module</pre>
var (sympy.physics.control.lti.Series property), 1903	sympy.core.random), 1078 vertices (sympy.combinatorics.polyhedron.Polyhedron
var (sympy.physics.control.lti.TransferFunction property), 1899	n property), 335 vertices (sympy.geometry.polygon.Polygon
$\verb var  (sympy.physics.control.lti.TransferFunction   in the control of the cont$	
property), 1922	property), 2293
	vertices (sympy.geometry.polygon.Triangle
sympy.physics.secondquant), 1560	property), 2303 VF() (in module sympy.printing.pretty.pretty symbology),
Variable (class in sympy.codegen.ast), 1140 variable (sympy.physics.continuum_mechanic	010=
property), 1981	
variable_map() (sympy.physics.vector.frame.F method), 1641	viete() (in module sympy.polys.polyfuncs),
variables (sympy.concrete.expr_with_limits.E. property), 608	xprWithLimits vlatex() (in module
variables (sympy.core.function.Lambda	sympy.physics.vector.printing), 1665
property), 1040	vobj() (in module
variables (sympy.core.function.Subs property), 1053	sympy.printing.pretty.pretty_symbology), 2185
variables (sympy.physics.quantum.operator.D property), 1808	i <b>ֈ՚թդ<u>ի</u> երգիր (in<sub>at</sub>nodule sympy.stats</b> ), 2930 Vpprint() (in module
variables (sympy.physics.quantum.state.Wave	efunctionsympy.physics.vector.printing), 1665 vprint() (in module
property), 1840 variables (sympy.series.sequences.SeqBase	sympy.physics.vector.printing), 1664
property), 634	vradius (sympy.geometry.ellipse.Circle prop- erty), 2272
variables (sympy.utilities.codegen.Routine property), 2052	vradius (sympy.geometry.ellipse.Ellipse
Variance (class in sympy.stats), 2966	property), 2269 vring() (in module sympy.polys.rings), 2552
variance() (in module sympy.stats), 2965	vstack() (sympy.matrices.common.MatrixCommon
VarianceMatrix (class in sympy.stats), 2979 variations() (in module	class method), 1358
sympy.utilities.iterables), 2098	vstack() (sympy.polys.matrices.ddm.DDM



method), 2691	Wigner6j (class in
vstack() (sympy.polys.matrices.domainmatrix	
method), 2689	Wigner9j (class in
vstack() (sympy.polys.matrices.sdm.SDM	sympy.physics.quantum.cg), 1794
method), 2699	wigner_3j() (in module
<b>VA</b> /	sympy.physics.wigner), 1571
W	wigner_6j() (in module
w (sympy.physics.optics.gaussopt.BeamParame	ter sympy.physics.wigner), 1572
property), 1859	wigner_9j() (in module
w_0 (sympy.physics.optics.gaussopt.BeamParan	meter sympy.physics.wigner), 1573
property), 1859	wigner_d() (in module
<pre>waist2rayleigh() (in module</pre>	sympy.physics.wigner), 1574
sympy.physics.optics.gaussopt),	wigner_d_small() (in module
1869	sympy.physics.wigner), 1575
waist_approximation_limit	WignerD (class in
(sympy.physics.optics.gaussopt.BeamF	Paramete sympy.physics.quantum.spin), 1828
property), 1860	WignerSemicircle() (in module
Wald() (in module sympy.stats), 2931	sympy.stats), 2933
<pre>walk() (in module sympy.core.traversal),</pre>	Wild (class in sympy.core.symbol), 976
1082	WildFunction (class in sympy.core.function),
warns() (in module sympy.testing.pytest),	1040
2028	wilkinson() (sympy.matrices.common.MatrixCommon
warns_deprecated_sympy() (in module	class method), 1358 Wishart() (in module sympy.stats), 2958
sympy.testing.pytest), 2029	write() (sympy.testing.runtests.PyTestReporter
sympy.physics.quantum.state), 1836 wavelength (sympy.physics.optics.waves.TWav	method), 2030
wave tength (sympy.physics.opiics.waves.i wav	(Sympy.defilles.codegen.codeden
proporty) 1000	method) 2049
property), 1889	method), 2049
property), 1889 wavenumber (sympy.physics.optics.waves.TWav	method), 2049 pewronskian() (in module
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890	method), 2049 wronskian() (in module sympy.matrices.dense), 1321
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop-	method), 2049 pewronskian() (in module
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022	method), 2049 wronskian() (in module sympy.matrices.dense), 1321
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom),	method), 2049 peronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate),
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812	method), 2049  peronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932	method), 2049 peronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate),
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in	method), 2049  newronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in	method), 2049  Avronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property),
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338	method), 2049  Avronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property),
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover)	method), 2049  Avronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 2215
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142	method), 2049  wronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 2215  x (sympy.physics.mechanics.body.Body prop-
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142 whole_submodule()	method), 2049  wronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 2215  x (sympy.physics.mechanics.body.Body property), 1763  x (sympy.physics.vector.frame.ReferenceFrame property), 1641
property), 1889 wavenumber (sympy.physics.optics.waves.TWaverproperty), 1890 weak (sympy.core.relational.Relational property), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142 whole_submodule()	method), 2049  Avronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 2215  x (sympy.physics.mechanics.body.Body property), 1763  x (sympy.physics.vector.frame.ReferenceFrame property), 1641  odBha (class in sympy.physics.quantum.cartesian),
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142 whole_submodule() (sympy.polys.numberfields.modules.Momethod), 2725	method), 2049  Avronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 2215  x (sympy.physics.mechanics.body.Body property), 1763  x (sympy.physics.vector.frame.ReferenceFrame property), 1641  odBha (class in sympy.physics.quantum.cartesian), 1802
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142 whole_submodule()	method), 2049  wronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 2215  x (sympy.physics.mechanics.body.Body property), 1763  x (sympy.physics.vector.frame.ReferenceFrame property), 1641  odBha (class in sympy.physics.quantum.cartesian), 1802  xdirection (sympy.geometry.line.Ray2D
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142 whole_submodule()	method), 2049  wronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 2215  x (sympy.physics.mechanics.body.Body property), 1763  x (sympy.physics.vector.frame.ReferenceFrame property), 1641  odBia (class in sympy.physics.quantum.cartesian), 1802  xdirection (sympy.geometry.line.Ray2D property), 2241
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142 whole_submodule()	method), 2049  weronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 1, 2215  x (sympy.physics.mechanics.body.Body property), 1763  x (sympy.physics.vector.frame.ReferenceFrame property), 1641  odBie (class in sympy.physics.quantum.cartesian), 1802  xdirection (sympy.geometry.line.Ray2D property), 2241  gratinection (sympy.geometry.line.Ray3D
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142 whole_submodule()	method), 2049  weronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 1, 2215  x (sympy.physics.mechanics.body.Body property), 1763  x (sympy.physics.vector.frame.ReferenceFrame property), 1641  odBie (class in sympy.physics.quantum.cartesian), 1802  xdirection (sympy.geometry.line.Ray2D property), 2241  gratinecidion (sympy.geometry.line.Ray3D property), 2245
property), 1889 wavenumber (sympy.physics.optics.waves.TWav property), 1890 weak (sympy.core.relational.Relational prop- erty), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142 whole_submodule() (sympy.polys.numberfields.modules.Momethod), 2725 wicks() (in module sympy.physics.secondquant), 1566 width (sympy.categories.diagram_drawing.Diagroperty), 2755 width() (sympy.printing.pretty.stringpict.string)	method), 2049  weronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 2215  x (sympy.physics.mechanics.body.Body property), 1763  x (sympy.physics.vector.frame.ReferenceFrame property), 1641  odBha (class in sympy.physics.quantum.cartesian), 1802  xdirection (sympy.geometry.line.Ray2D property), 2241  grainGridion (sympy.geometry.line.Ray3D property), 2245  grainGrideld() (in module sympy.polys.fields),
property), 1889 wavenumber (sympy.physics.optics.waves.TWaverproperty), 1890 weak (sympy.core.relational.Relational property), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142 whole_submodule()	method), 2049 cerronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 2215  x (sympy.physics.mechanics.body.Body property), 1763  x (sympy.physics.vector.frame.ReferenceFrame property), 1641  odBha (class in sympy.physics.quantum.cartesian), 1802  xdirection (sympy.geometry.line.Ray2D property), 2241  grainGradion (sympy.geometry.line.Ray3D property), 2245  gPideld() (in module sympy.polys.fields), 2560
property), 1889 wavenumber (sympy.physics.optics.waves.TWaverproperty), 1890 weak (sympy.core.relational.Relational property), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142 whole_submodule()	method), 2049  evronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 1763  x (sympy.physics.mechanics.body.Body property), 1763  x (sympy.physics.vector.frame.ReferenceFrame property), 1641  odBla (class in sympy.physics.quantum.cartesian), 1802  xdirection (sympy.geometry.line.Ray2D property), 2241  graim@cition (sympy.geometry.line.Ray3D property), 2245  graim@cition (in module sympy.polys.fields), 2560  XGate (class in sympy.physics.quantum.gate),
property), 1889 wavenumber (sympy.physics.optics.waves.TWaverproperty), 1890 weak (sympy.core.relational.Relational property), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142 whole_submodule()         (sympy.polys.numberfields.modules.Momethod), 2725 wicks() (in module sympy.stats), 1566 width (sympy.categories.diagram_drawing.Diagram_broperty), 2755 width() (sympy.printing.pretty.stringpict.stringmethod), 2188 WienerProcess (class in sympy.stats), 2955 Wigner3j (class in	method), 2049  evronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 2215  x (sympy.physics.mechanics.body.Body property), 1763  x (sympy.physics.vector.frame.ReferenceFrame property), 1641  odBha (class in sympy.physics.quantum.cartesian), 1802  xdirection (sympy.geometry.line.Ray2D property), 2241  grainGrition (sympy.geometry.line.Ray3D property), 2245  griteld() (in module sympy.polys.fields), 2560  XGate (class in sympy.physics.quantum.gate), 1846
property), 1889 wavenumber (sympy.physics.optics.waves.TWaverproperty), 1890 weak (sympy.core.relational.Relational property), 1022 WedgeProduct (class in sympy.diffgeom), 2812 Weibull() (in module sympy.stats), 2932 WeylGroup (class in sympy.liealgebras.weyl_group), 2338 WGate (class in sympy.physics.quantum.grover) 1848 where() (in module sympy.stats), 2965 While (class in sympy.codegen.ast), 1142 whole_submodule()	method), 2049  evronskian() (in module sympy.matrices.dense), 1321  X  X (in module sympy.physics.quantum.gate), 1846  x (sympy.geometry.point.Point2D property), 2211  x (sympy.geometry.point.Point3D property), 1763  x (sympy.physics.mechanics.body.Body property), 1763  x (sympy.physics.vector.frame.ReferenceFrame property), 1641  odBla (class in sympy.physics.quantum.cartesian), 1802  xdirection (sympy.geometry.line.Ray2D property), 2241  graim@cition (sympy.geometry.line.Ray3D property), 2245  graim@cition (in module sympy.polys.fields), 2560  XGate (class in sympy.physics.quantum.gate),

```
Xnor (class in sympy.logic.boolalg), 1170
                                             Ynm (class in sympy.functions.special.spherical harmonics),
xobj()
                                    module
                                                     545
                    (in
       sympy.printing.pretty.pretty symbology ynm c()
                                                                                 module
                                                                  (in
                                                     sympy.functions.special.spherical harmonics),
XOp (class in sympy.physics.quantum.cartesian),
                                                     547
                                             YOp (class in sympy.physics.quantum.cartesian),
       1802
Xor (class in sympy.logic.boolalg), 1168
                                                     1802
                    (sympy.core.basic.Basic YuleSimon() (in module sympy.stats), 2886
xreplace()
       method), 943
xreplace()(sympy.matrices.common.MatrixCo2mmon
       method), 1359
                                             Z (in module sympy.physics.quantum.gate),
xreplace() (sympy.physics.vector.dyadic.Dyadic
                                                     1846
       method), 1651
                                             z (sympy.geometry.point.Point3D property),
xreplace() (sympy.physics.vector.vector.Vector
                                                     2215
       method), 1647
                                             z (sympy.physics.mechanics.body.Body prop-
xring() (in module sympy.polys.rings), 2552
                                                     erty), 1763
xstr()
                                    module
                                             z (sympy.physics.vector.frame.ReferenceFrame
       sympy.printing.pretty.pretty symbology),
                                                    property), 1641
       2184
                                             zdirection
                                                             (sympy.geometry.line.Ray3D
                                    module
xsym()
                    (in
                                                     property), 2246
       sympy.printing.pretty.pretty_symbology}ero, 924
                                             Zero (class in sympy.core.numbers), 995
xthreaded()
                                    module
                       (in
                                                    (sympy.polys.domains.domain.Domain
                                             zero
       sympy.utilities.decorator), 2060
                                                    attribute), 2519
xypic draw diagram()
                            (in
                                    module
                                             zero (sympy.polys.polytools.Poly property),
       sympy.categories.diagram drawing),
       2760
                                             zero() (sympy.polys.numberfields.modules.Module
XypicDiagramDrawer
                            (class
                                         in
                                                     method), 2725
       sympy.categories.diagram drawing),
                                             ZeroMatrix
                                                                     (class
                                                                                       in
       2758
                                                     sympy.matrices.expressions), 1379
                                             ZeroPredicate
                                                                       (class
                                                                                       in
Y
                                                     sympy.assumptions.predicates.order),
Y (in module sympy.physics.quantum.gate),
                                                     221
       1846
                                             zeros() (in module sympy.matrices.dense),
  (sympy.geometry.point.Point2D property),
                                                     1319
       2211
                                             zeros() (sympy.matrices.common.MatrixCommon
y (sympy.geometry.point.Point3D property),
                                                     class method), 1359
       2215
                                             zeros()(sympy.physics.control.lti.TransferFunction
y (sympy.physics.mechanics.body.Body prop-
                                                     method), 1899
       erty), 1763
                                             zeros() (sympy.polys.matrices.domainmatrix.DomainMatri
y (sympy.physics.vector.frame.ReferenceFrame
                                                     class method), 2689
       property), 1641
                                             zeros()
                                                         (sympy.polys.matrices.sdm.SDM
      (sympy.series.sequences.RecursiveSeq
                                                     class method), 2700
       property), 640
                                             zeta (class in sympy functions.special.zeta functions),
ydirection
                (sympy.geometry.line.Ray2D
       property), 2241
                                             Zeta() (in module sympy.stats), 2886
                (sympy.geometry.line.Ray3D
ydirection
                                             ZGate (class in sympy.physics.quantum.gate),
       property), 2246
                                                     1846
YGate (class in sympy.physics.quantum.gate),
                                             Znm (class in sympy.functions.special.spherical harmonics),
                                                     547
yn (class in sympy.functions.special.bessel),
                                             ZOp (class in sympy.physics.quantum.cartesian),
                                                     1802
      (sympy.series.sequences.RecursiveSeq
yn
       property), 640
```