

Tree diagram 360 user

Operators

subsystem_apply

superop_reps

superoperator

continuous_variables

random_objects

from qutip.operators import

Operators

from qutip.operators import jmat , spin_Jy, spin_Jz

from qutip.operators import spin_Jm, spin_Jp, spin_J_set

from qutip.operators import sigmap, sigmam, sigmax

from qutip.operators import sigmay, sigmaz, destroy

from qutip.operators import create, qeye, identity

from qutip.operators import position, momentum, num

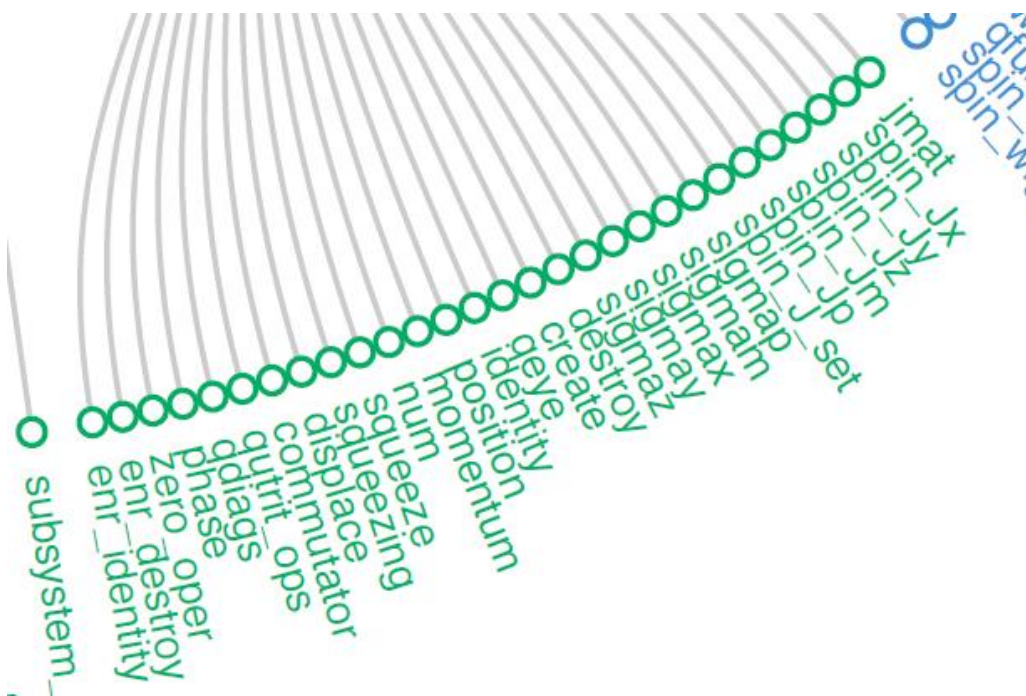
from qutip.operators import squeeze, squeezing, displace

from qutip.operators import commutator, qutrit_ops, qdiags

from qutip.operators import phase, zero_oper, enr_destroy, enr_identity

subsystem_apply :

from qutip.subsystem_apply import

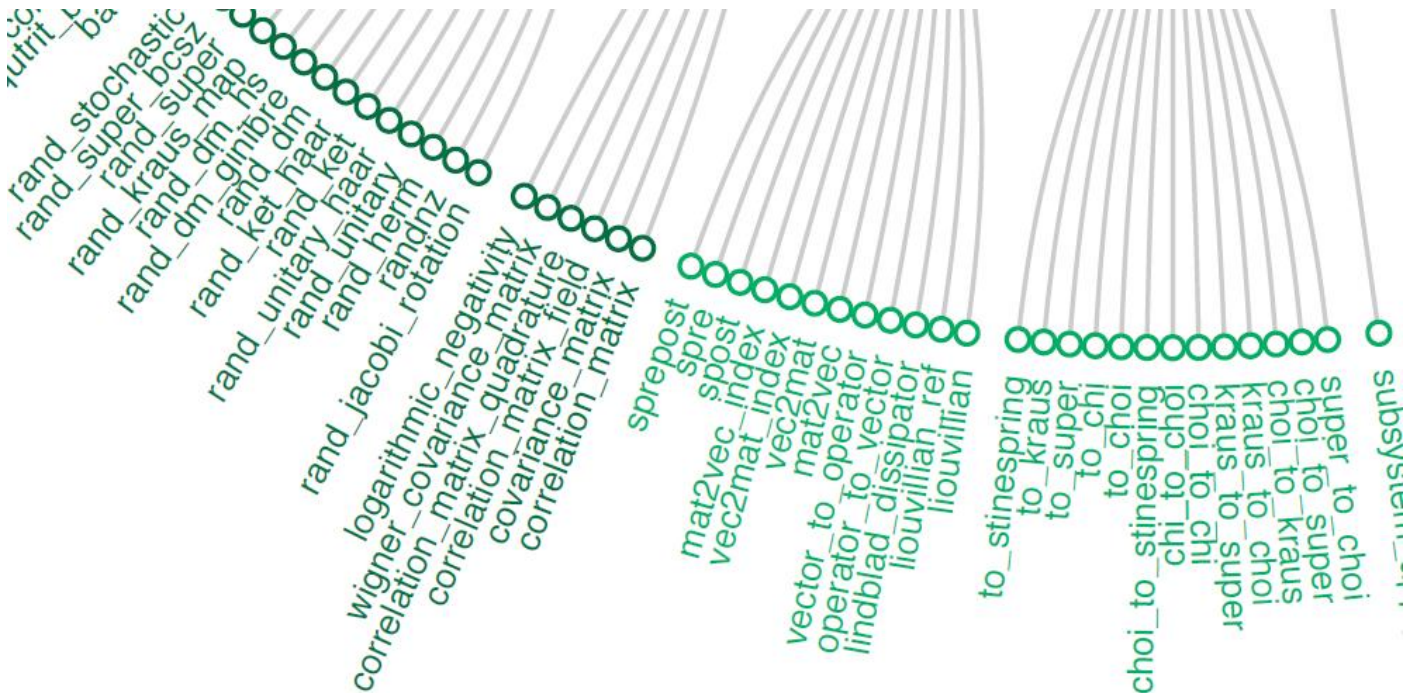


superop_reps

superoperator

continuous_variables

random_objects



superop_reps

```
from qutip.superop_reps import super_to_choi, choi_to_super, choi_to_kraus
```

```
from qutip.superop_reps import kraus_to_choi, kraus_to_super, choi_to_chi, chi_to_choi
```

```
from qutip.superop_reps import choi_to_stinespring, to_chi, to_chi
```

```
from qutip.superop_reps import to_super, to_kraus, to_stinespring
```

superoperator

```
from qutip.superoperator import liouvillian, liouvillian_ref, lindblad_dissipator
```

```
from qutip.superoperator import operator_to_vector, vector_to_operator, mat2vec
```

```
from qutip.superoperator import vec2mat, vec2mat_index, mat2vec_index
```

```
from qutip.superoperator import, spost, spre, sprepos
```

continuous_variables

```
from qutip.continuous_variables import
```

```
from qutip.continuous_variables import, correlation_matrix, covariance_matrix, correlation_matrix_field
```

```
from qutip.continuous_variables import, correlation_matrix_quadrature, wigner_covariance_matrix
```

```
from qutip.continuous_variables import, logarithmic_negativity
```

random_objects

```
from qutip.random_objects import rand_jacobi_rotation, randnz, rand_herm
```

```
from qutip.random_objects import rand_unitary, rand_unitary_haar, rand_ket
```

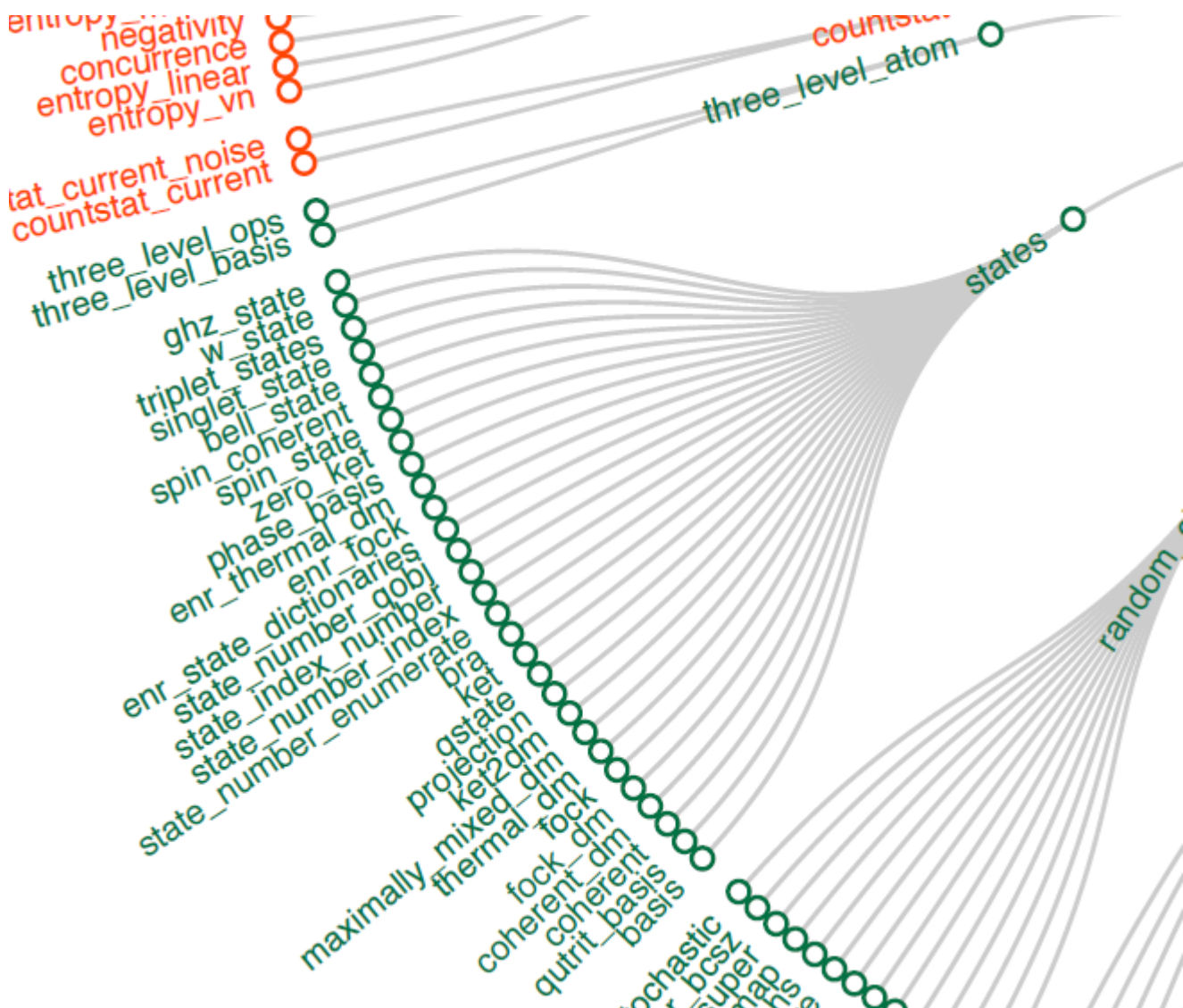
```
from qutip.random_objects import rand_ket_haar, rand_dm, rand_dm_ginibre
```

```
from qutip.random_objects import rand_dm_hs, rand_kraus_map, rand_super
```

```
from qutip.random_objects import rand_super_bcsz, rand_stochastic
```

states

three_level_atom



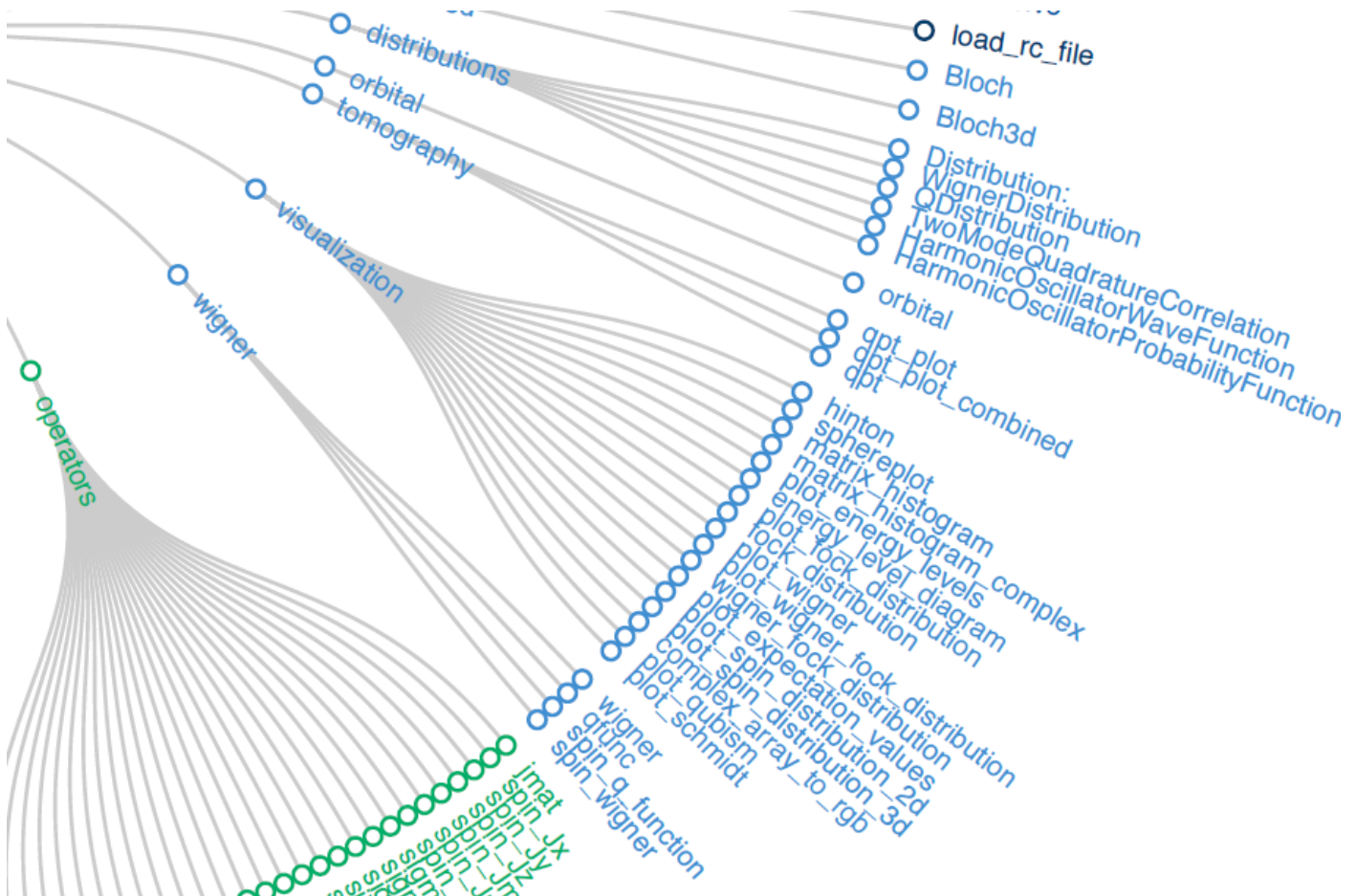
states

```
from qutip.states import ghz_state, basis, qutrit_basis

from qutip.states import coherent, coherent_dm, fock_dm
from qutip.states import fock, thermal_dm, maximally_mixed_dm
from qutip.states import ket2dm, projection, qstate
from qutip.states import ket, bra, state_number_enumerate
from qutip.states import state_number_index, state_index_number, state_number_qobj
from qutip.states import enr_state_dictionaries, enr_fock, enr_thermal_dm
from qutip.states import phase_basis, zero_ket, spin_state
from qutip.states import spin_coherent, bell_state, singlet_state
from qutip.states import triplet_states, w_state
```

three_level_atom

```
from qutip.three_level_atom import, three_level_basis, three_level_ops
wigner, visualization, tomography, orbital, distributions
```



wigner

```
from qutip.wigner import wigner, qfunc, spin_q_function
from qutip.wigner import spin_wigner
```

visualization

```
from qutip.visualization import hinton, sphereplot, matrix_histogram
from qutip.visualization import matrix_histogram_complex, plot_energy_levels
from qutip.visualization import energy_level_diagram, plot_fock_distribution
from qutip.visualization import fock_distribution, plot_wigner, plot_wigner_fock_distribution
from qutip.visualization import wigner_fock_distribution, plot_expectation_values
from qutip.visualization import plot_spin_distribution_2d, plot_spin_distribution_3d
from qutip.visualization import complex_array_to_rgb, plot_qubism, plot_schmidt
```

tomography

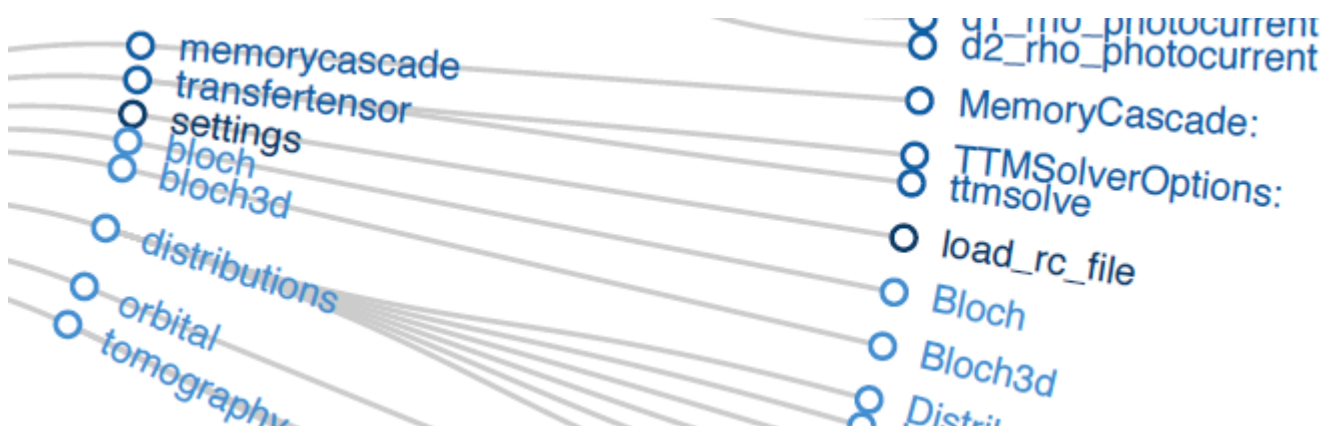
```
from qutip.tomography import qpt_plot, qpt_plot_combined qpt
```

orbital

```
from qutip.orbita import, orbita
```

distributions

```
from qutip.distributions import Distribution:, WignerDistribution, QDistribution
from qutip.distributions import TwoModeQuadratureCorrelation, HarmonicOscillatorWaveFunction
from qutip.distributions import HarmonicOscillatorProbabilityFunction
```



```
MemoryCascade:
transfertensor TTMSolverOptions:
ttmsolve
settings load_rc_file
bloch Bloch
bloch3d Bloch3d
```

memorycascade:

```
from qutip.memorycascade import MemoryCascade:
```

transfertensor

```
from qutip.transfertensor import TTMSolverOptions:, tmsolve
```

settings

```
from qutip.settings import load_rc_file
```

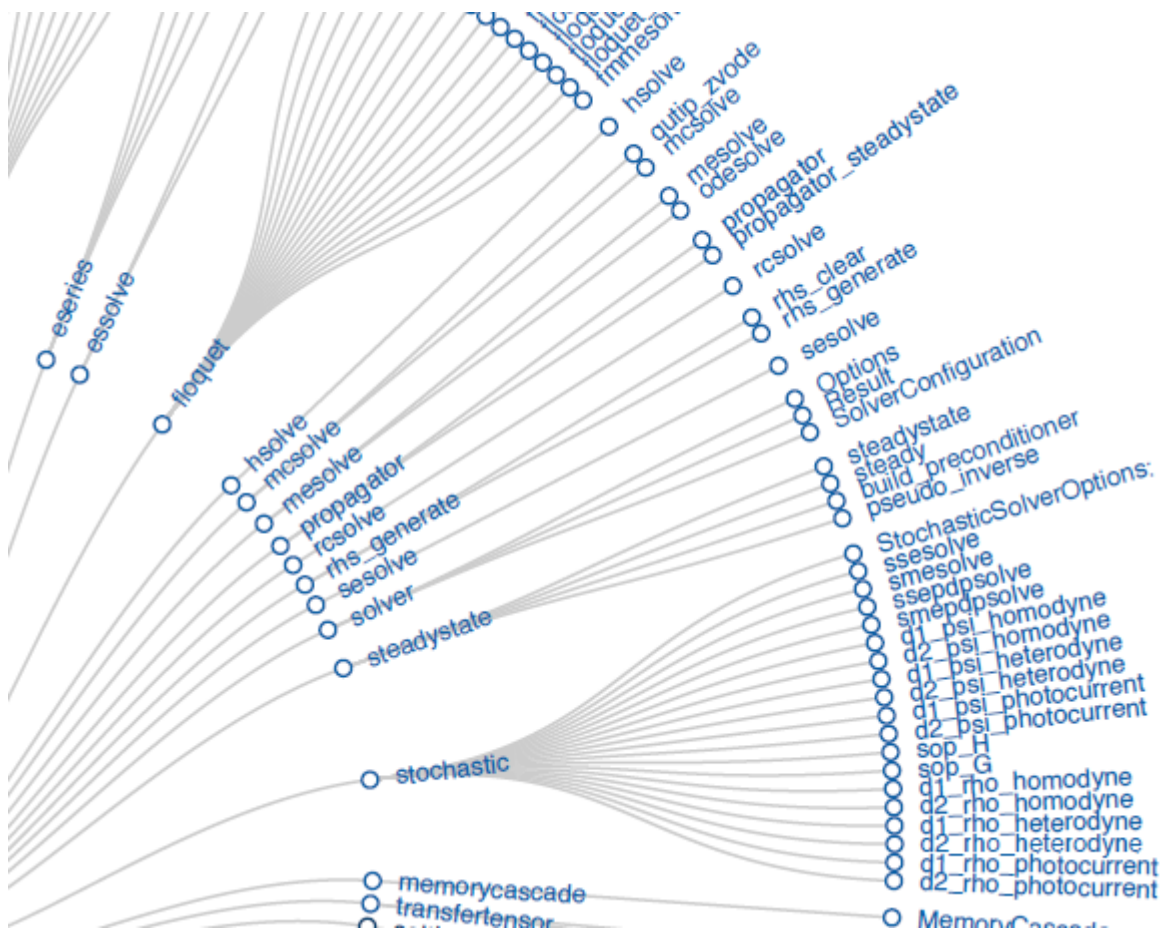
bloch

```
from qutip.settings import Bloch
```

bloch3d

```
from qutip.settings import Bloch3d
```

stochastic, steadystate, solver , sesolve,rhs_generate, resolve, propagator, mesolve, mesolve, hsolve





hsolve

```
from qutip.hsolve import hsolve
```

mcsolve

```
from qutip.mcsolve import qutip_zvode, mcsolve
```

mesolve

```
from qutip.mesolve import mesolve, odesolve
```

propagator

```
from qutip.propagator import propagator, propagator_steadystate
```

rcsolve

```
from qutip.rcsolve import rcsolve
```

rhs_generate

```
from qutip.rhs_generate import rhs_clear, rhs_generate
```

sesolve

```
from qutip.sesolve import sesolve
```

solver

```
from qutip.solver import Options, Result, SolverConfiguration
```

steadystate

```
from qutip.steadystate import steadystate, steady
```

```
from qutip.steadystate import build_preconditioner, pseudo_inverse
```

stochastic

```
from qutip.stochastic import StochasticSolverOptions:, ssesolve, smesolve
```

```
from qutip.stochastic import ssepdpsolve, smepdpsolve
```

```
from qutip.stochastic import d1_psi_homodyne, d2_psi_homodyne
```

```
from qutip.stochastic import d1_psi_heterodyne, d2_psi_heterodyne
```

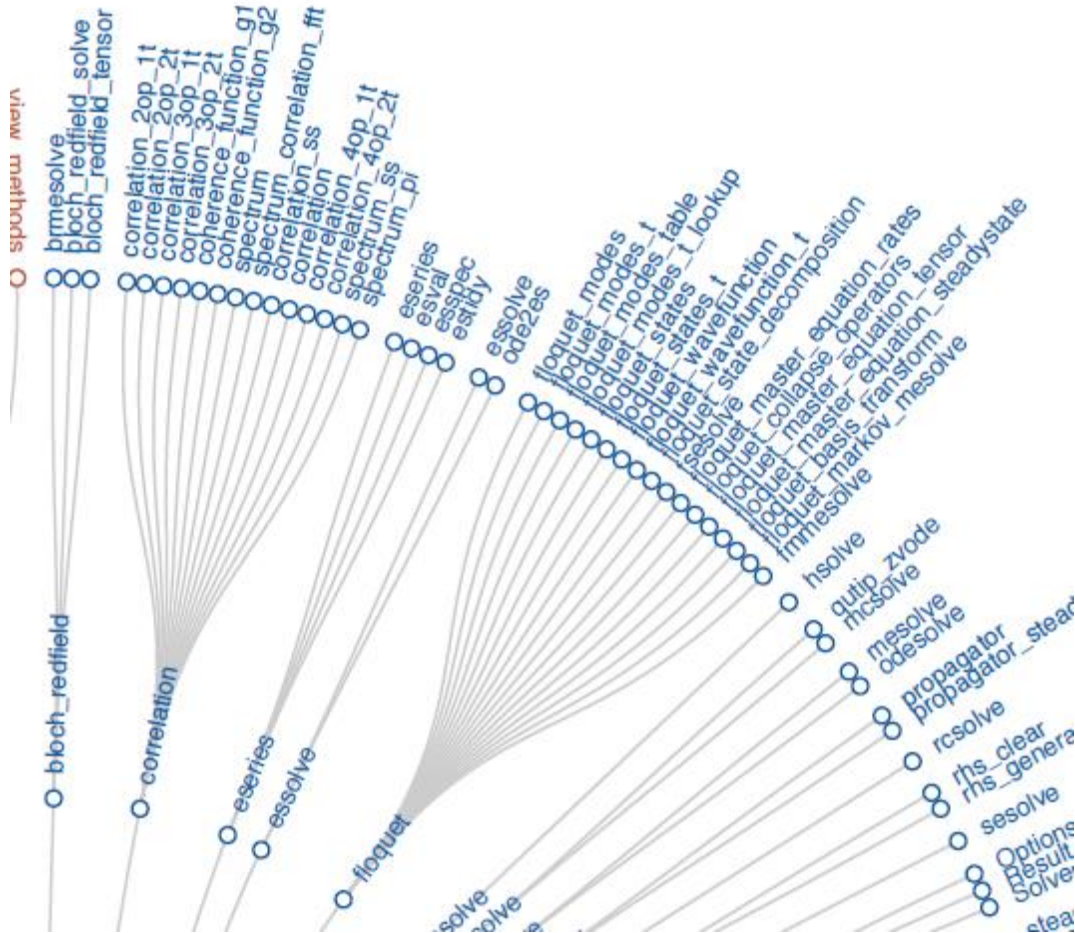
```
from qutip.stochastic import d1_psi_photocurrent, d2_psi_photocurrent
```

```
from qutip.stochastic import sop_H, sop_G
```

```
from qutip.stochastic import d1_rho_homodyne, d2_rho_homodyne
```

```
from qutip.stochastic import d1_rho_heterodyne, d2_rho_heterodyne
```

```
from qutip.stochastic import d1_rho_photocurrent, d2_rho_photocurrent
```

[bloch_redfield](#)

```
from qutip.bloch_redfield import brmesolve
from qutip.bloch_redfield import bloch_redfield_solve
from qutip.bloch_redfield import bloch_redfield_tensor
```

[correlation](#)

```
from qutip.correlation import correlation_2op_1t, correlation_2op_2t
from qutip.correlation import correlation_3op_1t, correlation_3op_2t
from qutip.correlation import coherence_function_g1, coherence_function_g2
from qutip.correlation import spectrum, spectrum_correlation_fft
from qutip.correlation import correlation_ss, correlation
from qutip.correlation import correlation_4op_1t, correlation_4op_2t
from qutip.correlation import spectrum_ss, spectrum_pi
```

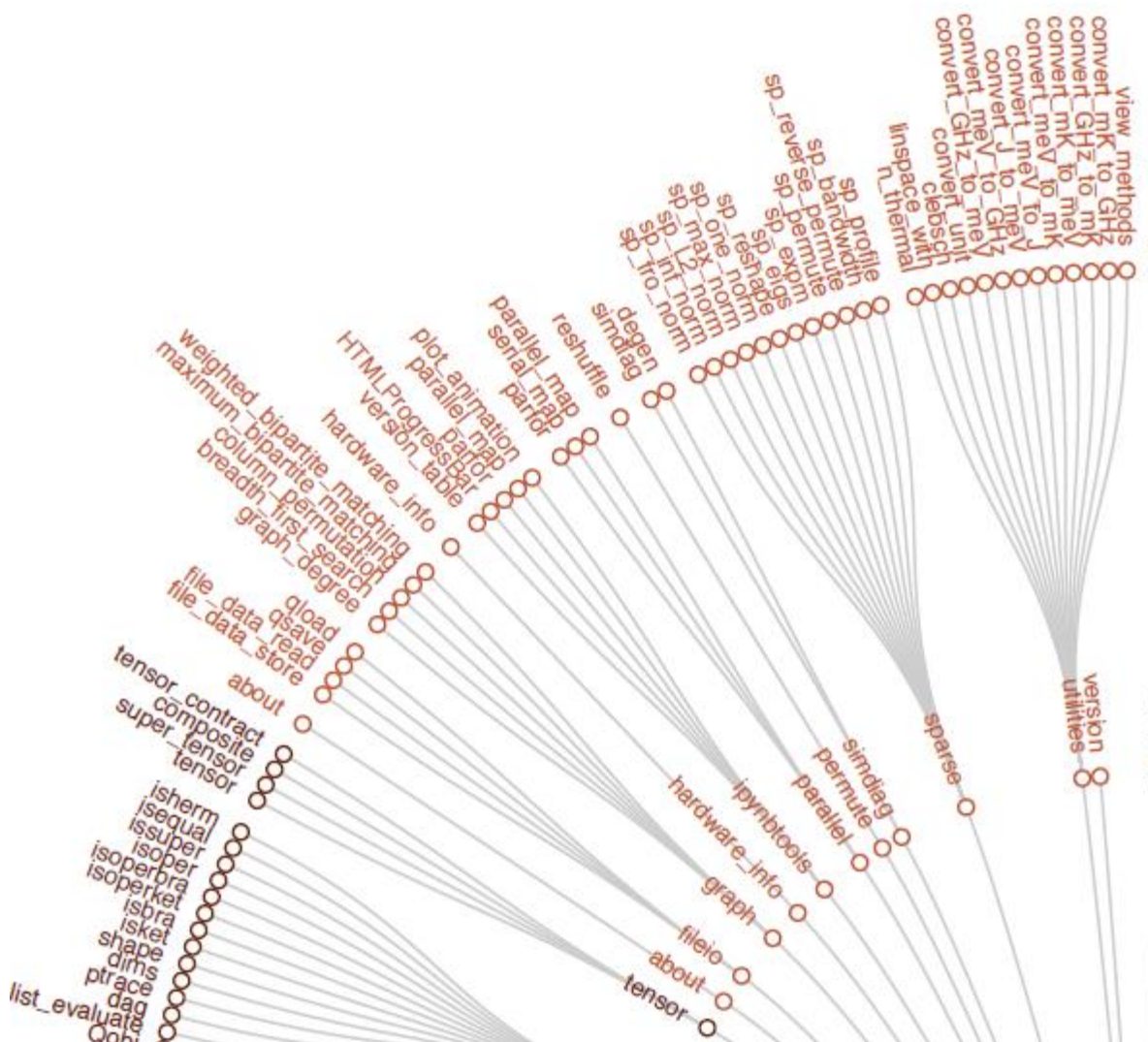
[eseries](#)

```
from qutip.eseries import eseries, esval, esspec, estidy
```

[essolve](#)

```
from qutip.essolve import essolve, ode2es
```

```
from qutip.floquet import floquet_modes, floquet_modes_t
from qutip.floquet import floquet_modes_table, floquet_modes_t_lookup
from qutip.floquet import floquet_states, floquet_states_t
from qutip.floquet import floquet_wavefunction, floquet_wavefunction_t
from qutip.floquet import floquet_state_decomposition, fsolve
from qutip.floquet import floquet_master_equation_rates
from qutip.floquet import floquet_collapse_operators
from qutip.floquet import floquet_master_equation_tensor
from qutip.floquet import floquet_master_equation_steadystate
from qutip.floquet import floquet_basis_transform
from qutip.floquet import floquet_markov_mesolve, fmmesolve
```



about

```
from qutip.about import about
```

fileio

```
from qutip.fileio import file_data_store
from qutip.fileio import file_data_read
from qutip.fileio import qsave, qload
```

graph

```
from qutip.graph import graph_degree
from qutip.graph import breadth_first_search
from qutip.graph import column_permutation
from qutip.graph import maximum_bipartite_matching
from qutip.graph import weighted_bipartite_matching
```

hardware_info

```
from qutip.hardware_info import hardware_info
```

ipynbtools

```
from qutip.ipynbtools import version_table
from qutip.ipynbtools import HTMLProgressBar
from qutip.ipynbtools import parfor
from qutip.ipynbtools import parallel_map
from qutip.ipynbtools import plot_animation
```

parallel

```
from qutip.parallel import parfor, serial_map, parallel_map
```

permute

```
from qutip.permute import reshuffle
```

simdiag

```
from qutip.simdiag import simdiag, degen
```

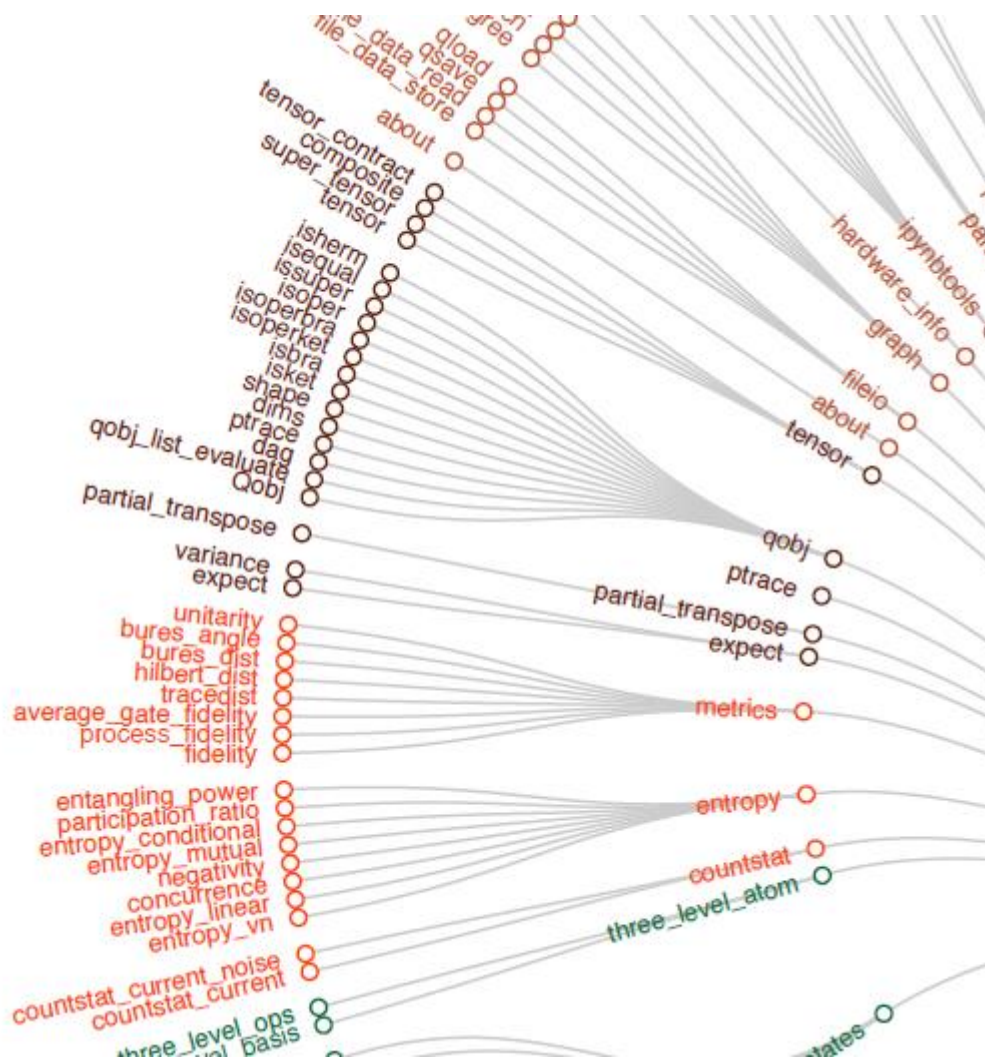
sparse

```
from qutip.sparse import sp_fro_norm, sp_inf_norm
from qutip.sparse import sp_L2_norm, sp_max_norm
from qutip.sparse import sp_one_norm, sp_reshape
from qutip.sparse import sp_eigs, sp_expm, sp_permute
from qutip.sparse import sp_reverse_permute, sp_bandwidth, sp_profile
```

utilities

```
from qutip.utilities import n_thermal, linspace_with, clebsch
from qutip.utilities import convert_unit
from qutip.utilities import convert_GHz_to_meV, convert_meV_to_GHz
from qutip.utilities import convert_J_to_meV, convert_meV_to_J
from qutip.utilities import convert_meV_to_mK, convert_mK_to_meV
from qutip.utilities import convert_GHz_to_mK, convert_mK_to_GHz
from qutip.utilities import view_methods
```

from qutip version import {no branch – indepnednt)



countstat

```
from qutip.countstat import  
  
from qutip.countstat import countstat_current, countstat_current_noise
```

entropy

```
from qutip.entropy import entropy_vn, entropy_linear  
from qutip.entropy import concurrence, negativity  
from qutip.entropy import entropy_mutual, entropy_conditional  
from qutip.entropy import participation_ratio, entangling_power
```

metrics

```
from qutip.metrics import  
  
from qutip.metrics import fidelity, process_fidelity, average_gate_fidelity  
from qutip.metrics import, tracedist, hilbert_dist, bures_dist  
from qutip.metrics import, bures_angle, unitarity
```

expect

```
from qutip.expect import  
  
from qutip.expect import expect, variance
```

partial_transpose

```
from qutip.partial_transpose import partial_transpose
```

ptrace

```
from qutip.pttrace import {independent}
```

qobj

```
from qutip.qobj import  
  
from qutip.qobj import Qobj  
from qutip.qobj import qobj_list_evaluate  
from qutip.qobj import dag, ptrace, dims  
from qutip.qobj import shape, isket, isbra  
from qutip.qobj import isoperket, isoperbra  
from qutip.qobj import isoper, issuper  
from qutip.qobj import isequal, isherm
```

tensor

```
from qutip.tensor import  
  
from qutip.tensor import tensor  
from qutip.tensor import super_tensor  
from qutip.tensor import composite  
from qutip.tensor import tensor_contrac
```