**Tree diagram 360 user**

from qutip. Operators import

list

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superop_reps

superoperator

continuous_variables

random_objects

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states

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entropy
metrics
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partial_transpose
ptrace
qobj
tensor

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bloch_redfield
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**G=** stochastic, steadystate, solver , sesolve,rhs_generate, resolve, propagator, mesolve, mesolve, hsolve

**H=** MemoryCascade:
transfertensor
settings
bloch
bloch3d

**I=** wigner, visualization, tomography, orbital, distributions

# A

**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 subsystem_apply

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_chichi_to_choi

from qutip. superop_reps import choi_to_stinespring, to_choi, 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

# B

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

# C

three_level_atom

from qutip. three_level_atom import, three_level_basis, three_level_ops

# D

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

expect
from qutip expect import expect, variance

partial_transpose
from qutip partial_transpose import partial_transpose

ptrace

## from qutip ptrace import

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

tensor
from qutip tensor import tensor, super_tensor
from qutip tensor import composite tensor_contract

# E

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 )

## F

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

floquet
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, fsesolve
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

# G

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

# H

MemoryCascade:

from qutip MemoryCascade import MemoryCascade:

transfertensor

from qutip transfertensor import TTMSolverOptions:, ttmsolve

settings
from qutip settings import load_rc_file

bloch
from qutip settings import Bloch

bloch3d

from qutip settings import Bloch3d

# I

**distributions**

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

**orbital**

from qutip orbita import, orbita

**tomography**

from qutip tomography import qpt_plot, qpt_plot_combined qpt

**visualization**

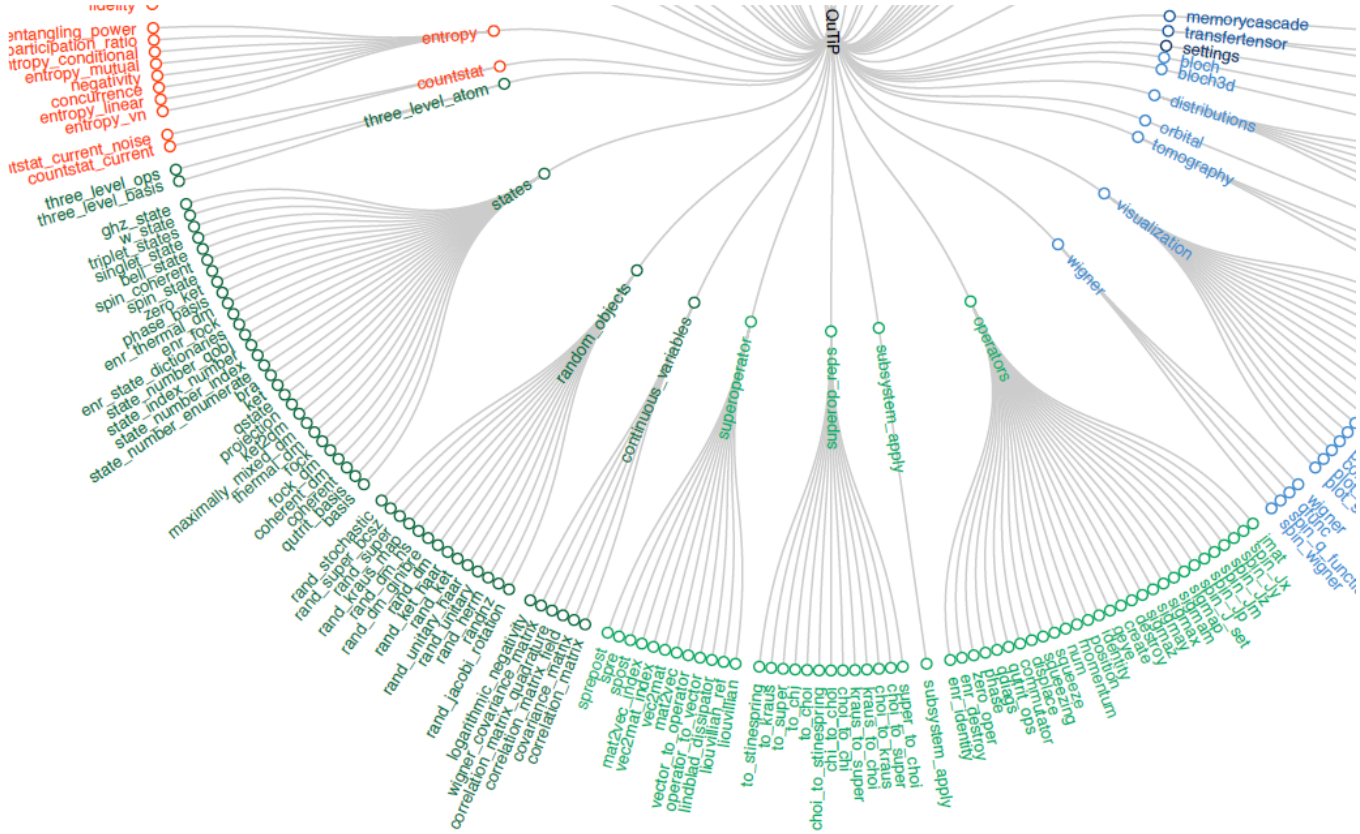
from qutip. visualization import hinton, sphereplot, matrix_histogram

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

### wigner

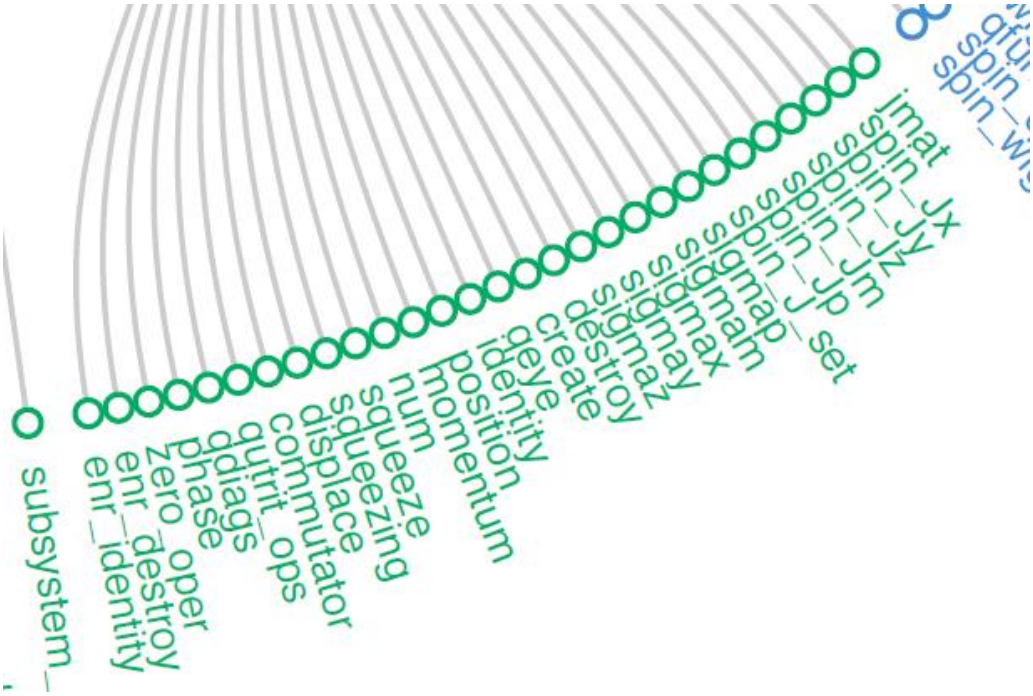
from qutip. wigner import wigner, qfunc, spin_q_function
from qutip. wigner import spin_wigner

FIRST SEMICIRCCLE

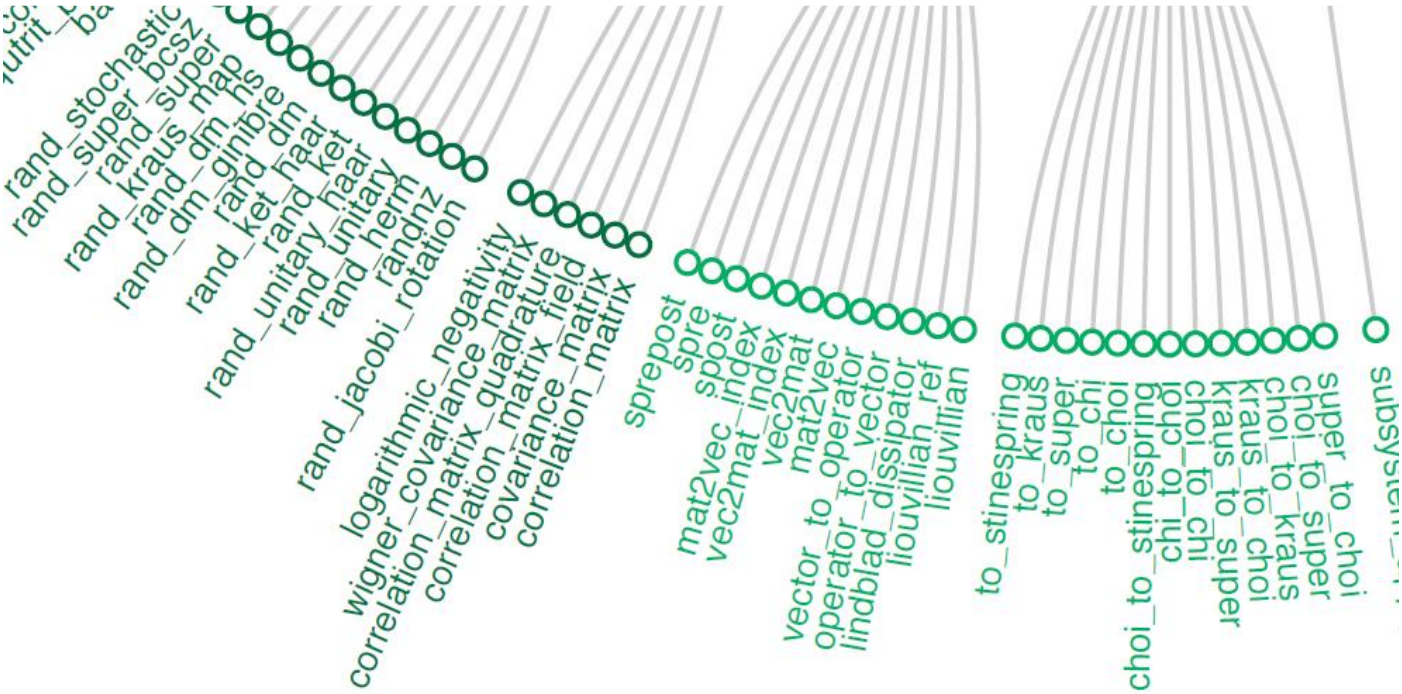


Qutip tree

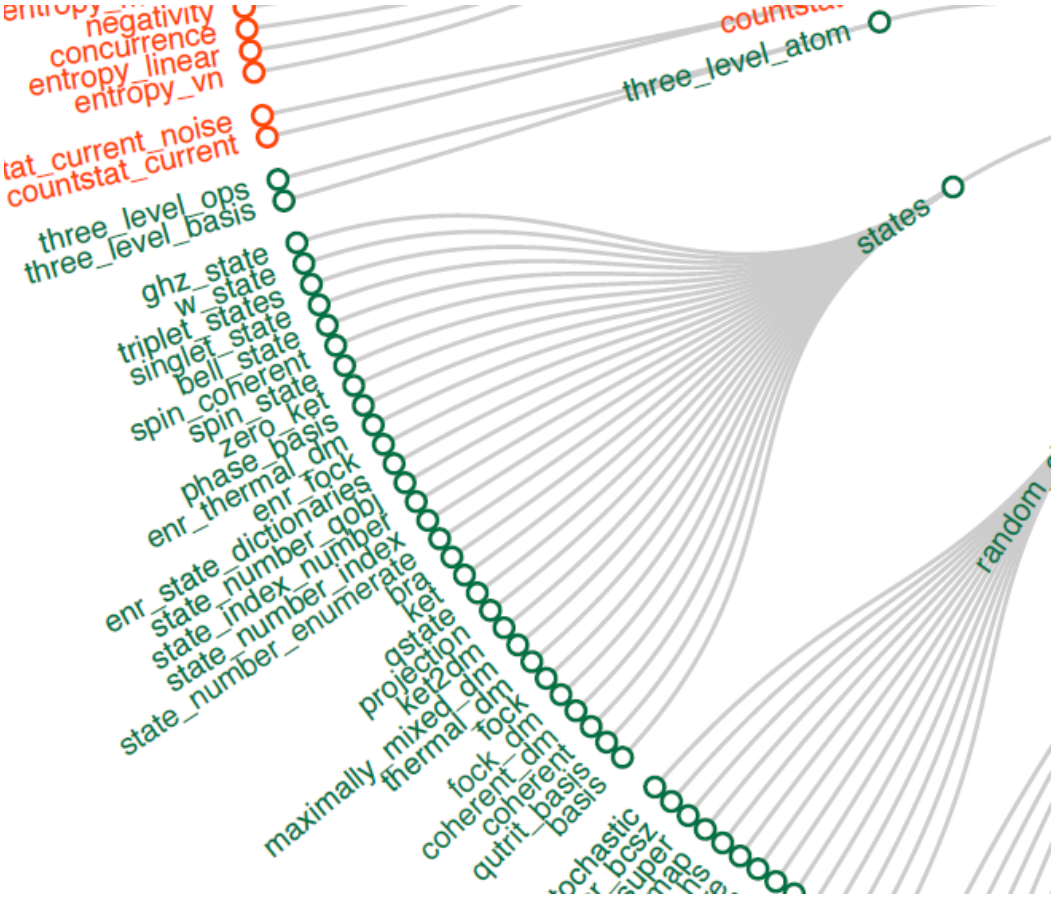
A1




A2



B,C


negativity
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entropy_linear
entropy_vn
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countstat_current
three_level_ops
three_level_basis
three_level_atom
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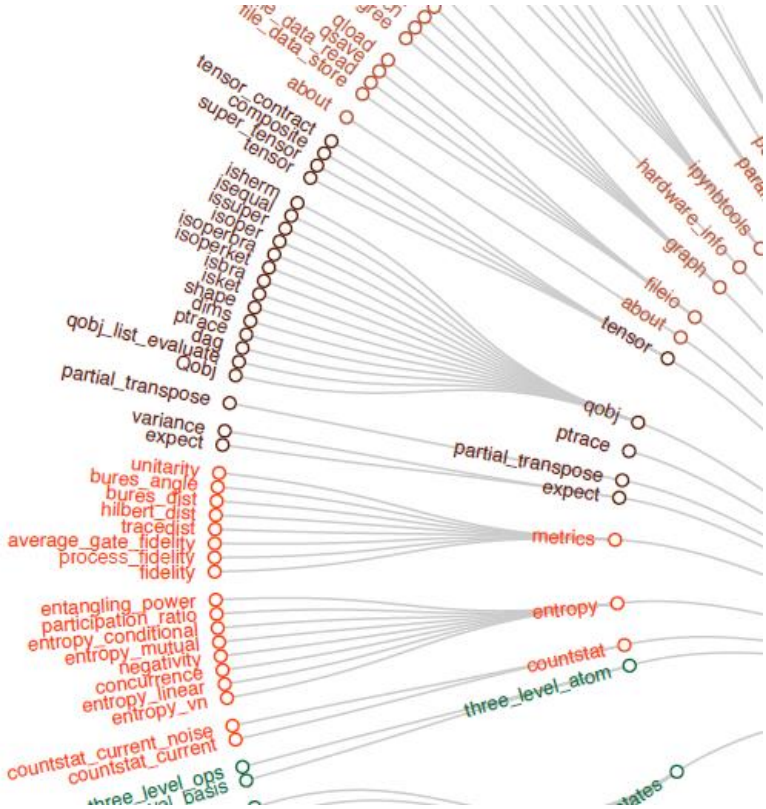
random
ghz_state
w_state
triplet_states
singlet_state
bell_state
spin_coherent
spin_state
zero_ket
phase_basis
enr_thermal_dm
enr_fock
enr_state_dictionaries
state_number_qobj
state_index_number
state_number_index
state_number_enumerate
bra
ket
qstate
projection
ket2dm
maximally_mixed_dm
thermal_dm
fock
fock_dm
coherent_dm
coherent
qutrit_basis
basis

D


qload
qsave
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file_data_store
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tensor_contract
composite
super_tensor
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isherm
isequal
issuper
isoper
isoperbra
isoperket
isbra
isket
shape
dims
ptrace
dag
qobj_list_evaluate
Qobj
partial_transpose
variance
expect
unitarity
bures_angle
bures_dist
hilbert_dist
tracedist
average_gate_fidelity
process_fidelity
fidelity
entangling_power
participation_ratio
entropy_conditional
entropy_mutual
negativity
concurrence
entropy_linear
entropy_vn
countstat_current_noise
countstat_current
three_level_ops
ipynbtools
hardware_info
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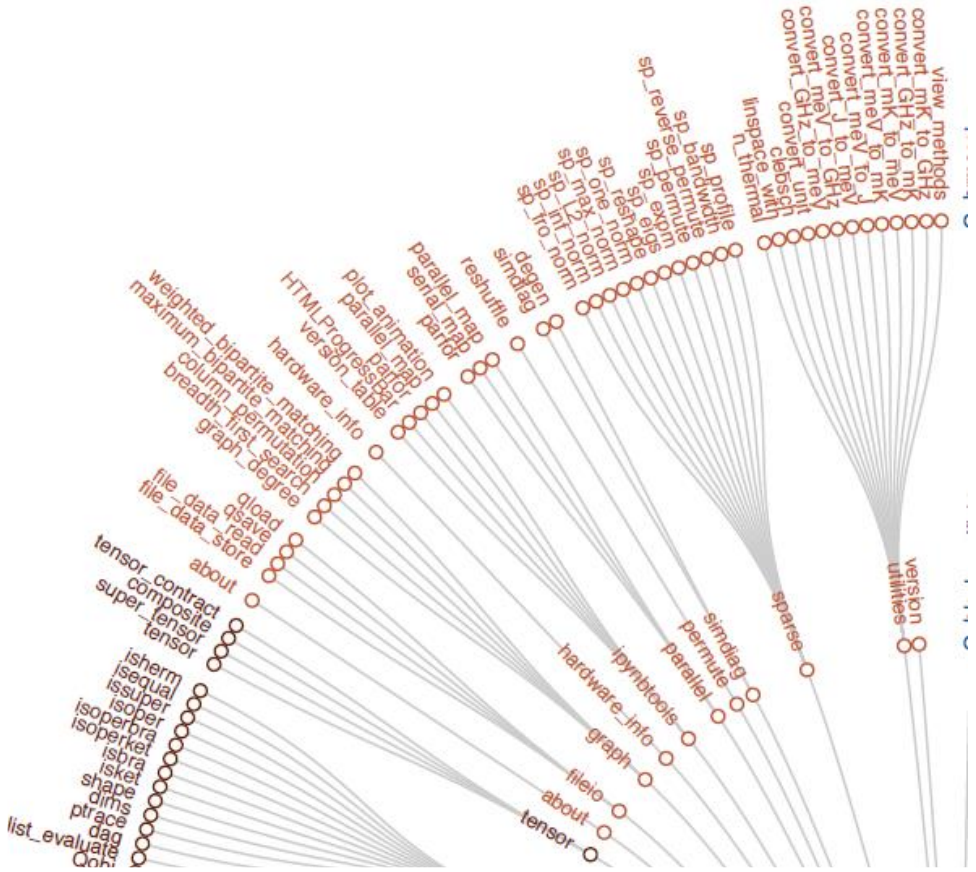
fileio
about
tensor
qobj
ptrace
partial_transpose
expect
metrics
entropy
countstat
three_level_atom

E


view_methods
convert_mK_to_GHz
convert_GHz_to_mK
convert_mK_to_meV
convert_meV_to_mK
convert_meV_to_J
convert_J_to_meV
convert_meV_to_GHz
convert_GHz_to_meV
convert_unit
clebsch
linspace_with
n_therma
sp_profile
sp_bandwidth
sp_reverse_permute
sp_permute
sp_expm
sp_eigs
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sp_max_norm
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sp_int_norm
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ipynbtools
hardware_info
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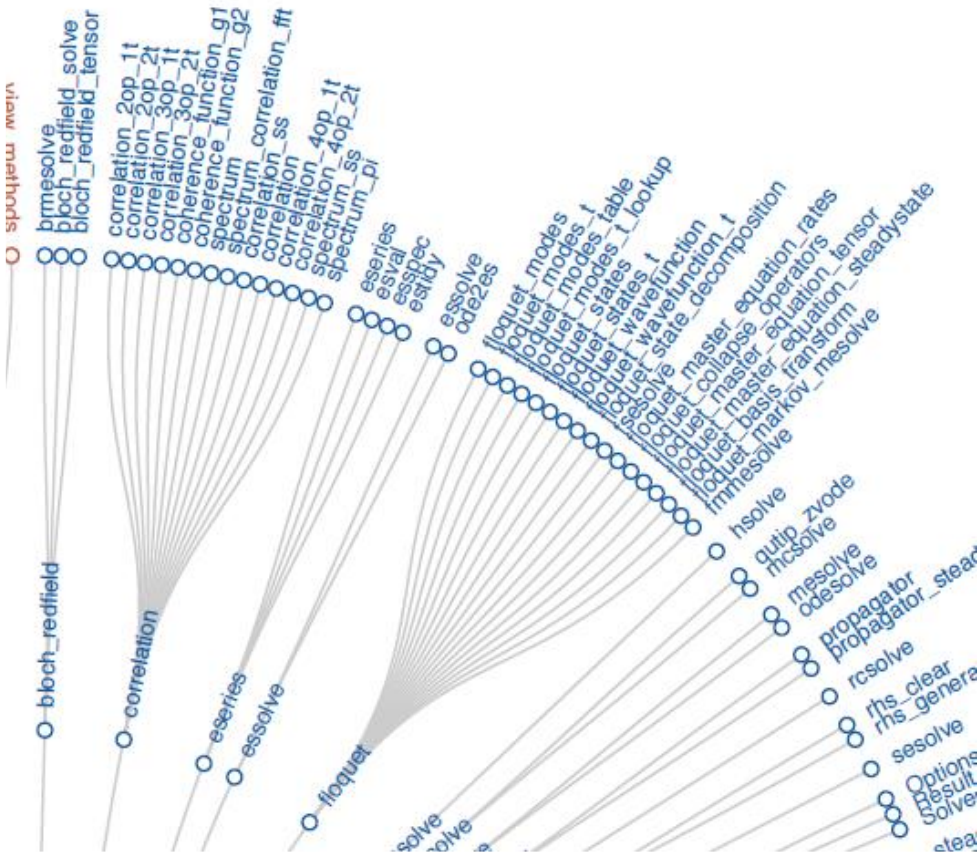
about
tensor
version
utilities

F


view_methods
brmesolve
bloch_redfield_solve
bloch_redfield_tensor
correlation_2op_1t
correlation_2op_2t
correlation_3op_1t
correlation_3op_2t
coherence_function_g1
coherence_function_g2
spectrum
spectrum_correlation_fft
correlation_ss
correlation
correlation_4op_1t
correlation_4op_2t
spectrum_ss
spectrum_pi
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esval
esspec
esidy
essolve
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floquet_modes_t
floquet_modes_table
floquet_modes_t_lookup
floquet_states
floquet_states_t
floquet_wavefunction
floquet_wavefunction_t
floquet_state_decomposition
fmmesolve
floquet_master_equation_rates
floquet_collapse_operators
floquet_master_equation_tensor
floquet_master_equation_steadystate
floquet_basis_transform
floquet_markov_mesolve
hsolve
qutip_zvode
mcsolve
mesolve
odesolve
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propagator_stead
rcsolve
rhs_clear
rhs_genera
sesolve
Options
Result
Solver
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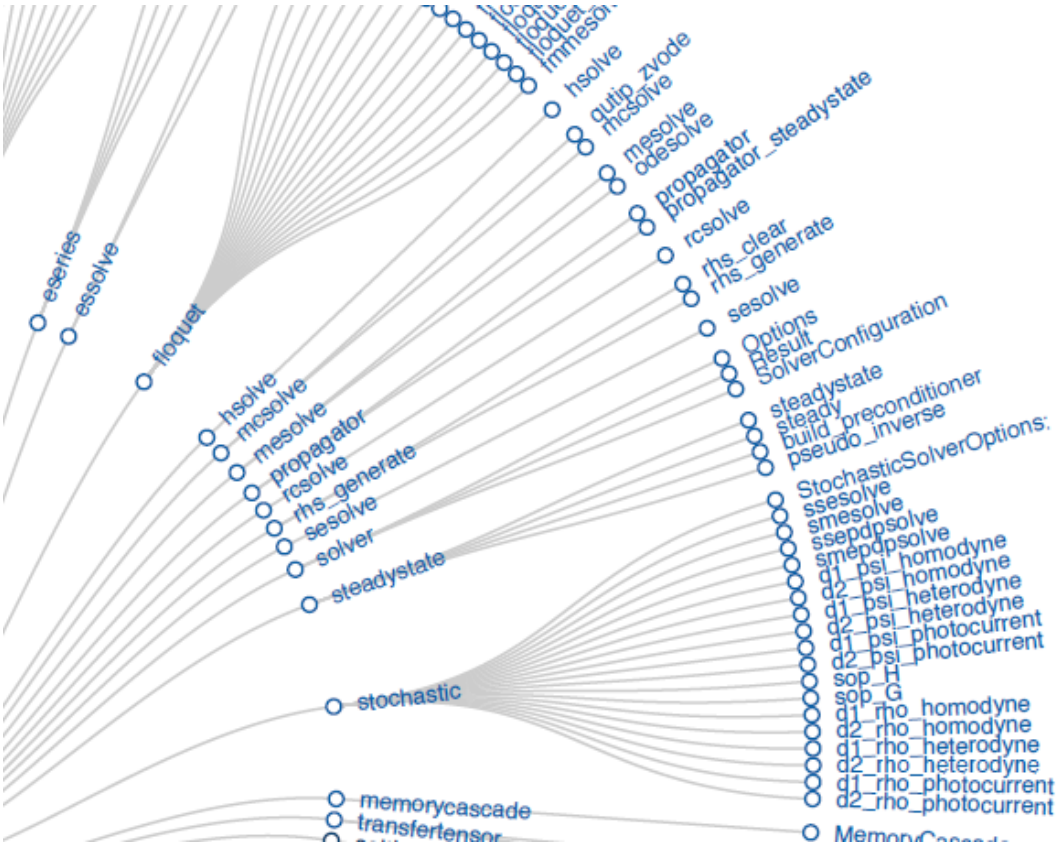
correlation
eseries
essolve
floquet

G


eseries
essolve
floquet
hsolve
mcsolve
mesolve
propagator
rcsolve
rhs_generate
sesolve
solver
steadystate
stochastic
memorycascade
transfertensor
hsolve
qutip_zvode
mcsolve
mesolve
odesolve
propagator
propagator_steadystate
rcsolve
rhs_clear
rhs_generate
sesolve
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steadystate
steady
build_preconditioner
pseudo_inverse
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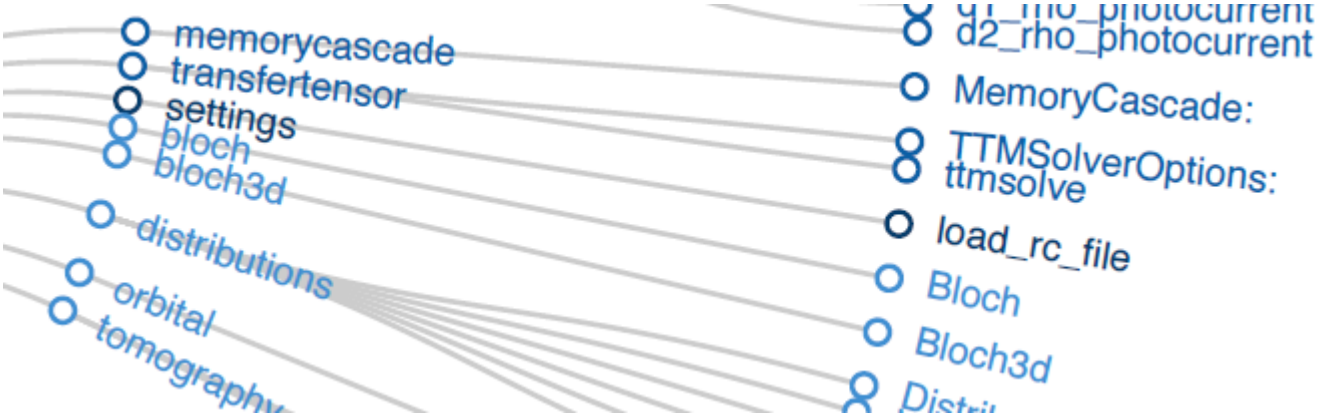
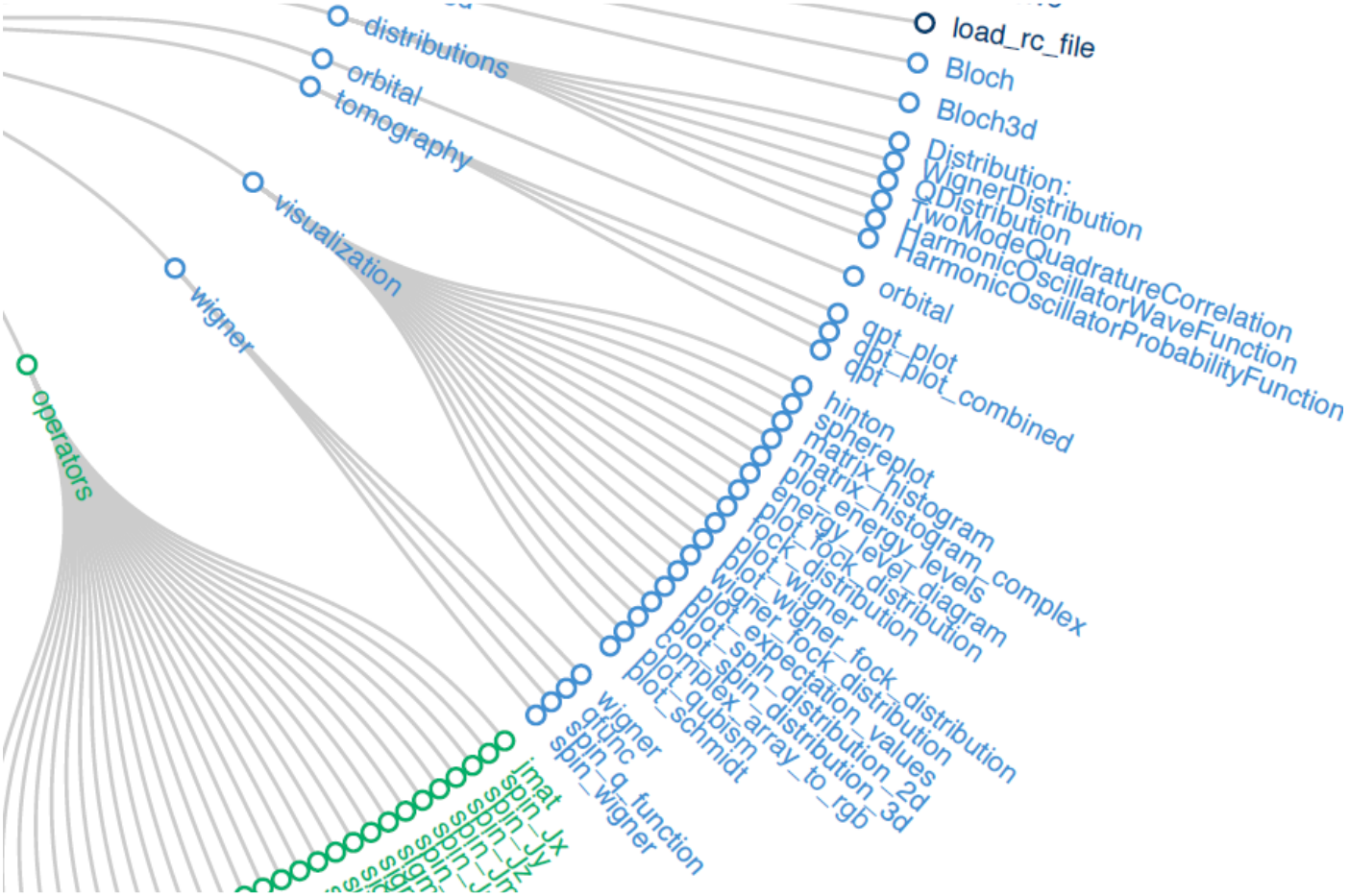
ssesolve
smesolve
ssepdpsolve
smepdpsolve
d1_psi_homodyne
d2_psi_homodyne
d1_psi_heterodyne
d2_psi_heterodyne
d1_psi_photocurrent
d2_psi_photocurrent
sop_H
sop_G
d1_rho_homodyne
d2_rho_homodyne
d1_rho_heterodyne
d2_rho_heterodyne
d1_rho_photocurrent
d2_rho_photocurrent

H


memorycascade
transfertensor
settings
bloch
bloch3d
distributions
orbital
d2_rho_photocurrent
MemoryCascade:
TTMSolverOptions:
ttmsolve
load_rc_file
Bloch
Bloch3d

I


distributions
orbital
tomography
visualization
wigner
operators
load_rc_file
Bloch
Bloch3d
Distribution:
WignerDistribution
QDistribution
TwoModeQuadratureCorrelation
HarmonicOscillatorWaveFunction
HarmonicOscillatorProbabilityFunction
orbital
qpt_plot
qpt_plot_combined
hinton
sphereplot
matrix_histogram
matrix_histogram_complex
plot_energy_levels
energy_level_diagram
fock_distribution
plot_fock_distribution
plot_wigner
wigner_fock_distribution
plot_expectation_values
plot_spin_distribution_2d
complex_array_to_rgb
plot_spin_distribution_3d
plot_qubism
plot_schmidt
wigner
qfunc
spin_q_function
spin_wigner
jmat
spin_Jx
spin_Jy