

qflow documenation

JN

January 7, 2021

1 Terminology

VMC simulation - A complete VMC simulation using

2 `qflow.training`

`qflow.training.train(psi, H, sampler, iters, samples, gamma, optimizer, verbose, call_backs, call_back_resolution)`

1. *psi* - Wavefunction class from `qflow.wavefunctions`
2. *H* - Hamiltonian class from `qflow.hamiltonians`
3. *sampler* - Sampler class from `qflow.samplers`
4. *iters* - Number of complete VMC simulations used during training
5. *samples* -
6. *gamma* -
7. *optimizer* -
8. *verbose* -
9. *call_backs* -
10. *call_back_resolution* -

3 qflow.Hamiltonian

`qflow.Hamiltonian.optimize_wavefunction(psi, sampler, iterations, samples, optimizer, gamma, verbose)`

1. *psi* - Wavefunction class from `qflow.wavefunctions`
2. *sampler* - Sampler class from `qflow.samplers`
3. *iterations* - Number of complete VMC simulations used during training
4. *samples* -
5. *optimizer* -
6. *gamma* -
7. *verbose* -

`optimize_wavefunction` uses a 0.2 burn-in ratio to the total samples in each iteration.