# Improve performance and usability of BasicAer

**Qiskit** 

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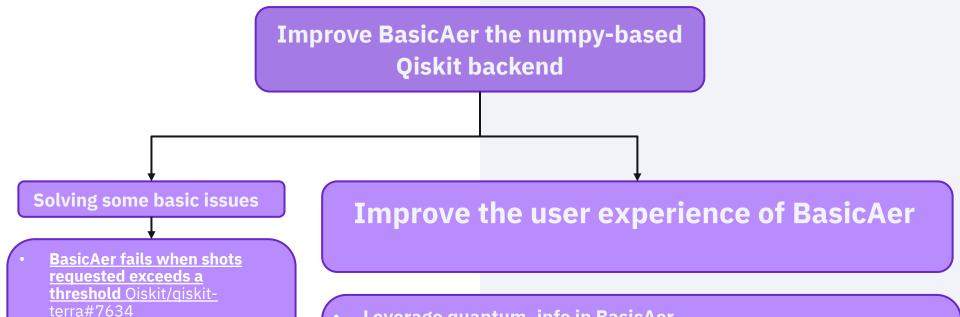
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Working on Quantum Thermodynamics

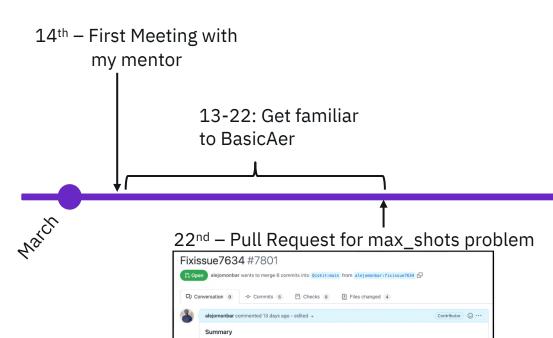
### Summary of the project





- Add date attribute to BasicAer job result Qiskit/qiskitterra#7781
- Leverage quantum\_info in BasicAer.
- Removing duplication of code adding some functions from quantum\_info in BasicAer
- Leverage quantum\_info in StatevectorSimulatorPy Qiskit/qiskitterra#7670

#### What I have done!



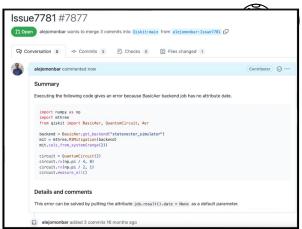
from qiskit import BasicAer, QuantumCircuit
backend = BasicAer.get\_backend('qasm\_simulator')
circuit = QuantumCircuit(1,1)
circuit.x(0)
circuit.measure(0,0)

job = backend.run(circuit, shots=int(1e6))

Details and comments

Executing the following code gives an error because max\_iter for BasicAer has a limit of 65536 shots.

The idea is that BasicAer does not have a limit in terms of the number of shots. Instead, the default value equals zero which



<sup>4th</sup> – Pull Request for date problem

POIL



## Future work

- Improve the previous pull requests and make the test for them.
- Leverage quantum\_info in BasicAer.

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