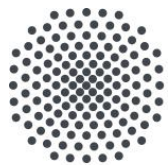


# Hands-On IBM Q



University of Stuttgart

**Michael Hahn**

*michael.hahn@iaas.uni-stuttgart.de*

Institute of Architecture of Application Systems

# Outline

---

- IBM Q Experience
  - <https://www.research.ibm.com/ibm-q/>
  - <https://quantum-computing.ibm.com/composer>
- The Jupyter Notebook
  - Website: <http://jupyter.org/>
  - Documentation: <https://jupyter.readthedocs.io/en/latest/index.html>
  - Notebook Documentation: <https://jupyter-notebook.readthedocs.io/en/stable/>

# Outline

---

- IBM Qiskit
  - Website: <https://qiskit.org/>
  - Qiskit Overview: <https://medium.com/qiskit/qiskit-and-its-fundamental-elements-bcd7ead80492>
  - Qiskit Aqua Overview: <https://medium.com/qiskit/qiskit-aqua-a-library-of-quantum-algorithms-and-applications-33ecf3b36008>
  - Qiskit Elementary Quantum Operations: [https://qiskit.org/documentation/terra/summary\\_of\\_quantum\\_operations.html](https://qiskit.org/documentation/terra/summary_of_quantum_operations.html)
  - Tutorials: <https://github.com/Qiskit/qiskit-tutorials>
- IBM Qiskit Aqua
  - Website: <https://qiskit.org/aqua>
  - Supported algorithms: <https://qiskit.org/documentation/aqua/algorithms.html>
  - Tutorials: <https://github.com/Qiskit/qiskit-tutorials>