

Nouhaila Innan

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Quantum Computing for Natural Sciences (with IBM Quantum)

Teaching Team: Max Rossmannek, Julian Schuhmacher, Alexander Miessen, and
Laurin Fischer

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| Duration: | 06.09.2023 - 26.09.2023 |
| Language: | English |
| Teaching form: | Online Course |

Course Topics:

- Simulating molecular dynamics on quantum computers
- Challenges and prospects of quantum simulation
- Common error sources and how to mitigate them
- Mapping the quantum description of molecules to the qubits of a quantum computer
- Computing ground state and excited state energies of molecules with quantum algorithms

Potsdam, September 26, 2023

Verify online: <https://open.hpi.de/verify/xigef-tobyl-navan-lyfep-lorut>

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