

Quantum Computing Overview and Global Landscape - William Hurley

Kilby (1976): Invention of the Integrated Circuit

- National Academies Summary on Integrated Circuits — free overview of how integrated circuits were invented and why they matter (history and impact).
<https://nap.nationalacademies.org/read/25196/chapter/3>
- Wikipedia: Integrated Circuit (History) — brief, clear summary on invention and evolution of ICs.
https://en.wikipedia.org/wiki/Integrated_circuit
- Student-friendly history article (SweetStudy) — short explanation of Kilby and Noyce contributions.
<https://www.sweetstudy.com/files/theinnovatorshowagroup1.pdf>

Newell & Simon (1976): Computer Science as Empirical Inquiry

- SciSpace summary — short abstract with key ideas from the paper (goal of CS, symbols and search).
<https://scispace.com/papers/computer-science-as-empirical-inquiry-symbols-and-search-26ge2ratwk>
- Wikipedia: Heuristics (context for symbolic search) — explains core concept the authors focus on (heuristic search).
[https://en.wikipedia.org/wiki/Heuristic_\(computer_science\)](https://en.wikipedia.org/wiki/Heuristic_(computer_science))
- Podcast commentary on paper — informal explanation (free).
erichnormand.me
https://www.youtube.com/watch?v=KM0_MNIhlsE

Bacciagaluppi & Valentini (2009): Solvay Conference and Quantum Theory

- Encyclopedia Britannica: Solvay Conferences — clear overview of the 1927 conference and why it was important.
<https://www.britannica.com/event/Solvay-Conferences>
- Book for general audience (“Quantum”) — history of quantum debates including Solvay.
[Wikipediahttps://en.wikipedia.org/wiki/Quantum_\(book\)](https://en.wikipedia.org/wiki/Quantum_(book))

Note: The Bacciagaluppi & Valentini book itself is a scholarly book without free access, BUT these summaries cover the key historical context.

Shor (1997): Polynomial-Time Algorithm for Prime Factorization

- Wikipedia: Shor’s algorithm — concise explanation of the algorithm and why it matters.
https://en.wikipedia.org/wiki/Shor%27s_algorithm
- CivilsDaily explanation — simplified overview of Shor’s algorithm and its implications for cryptography.
<https://www.civilsdaily.com/story/innovations-in-sciences-it-computers-robotics-and-nanotechnology/>
- Stanford Encyclopedia (Quantum Computing) — broader context including Shor’s work.
<https://plato.stanford.edu/entries/qt-quantcomp/>
- ArXiv intro paper (accessible) — gentle introduction to quantum computing ideas connected to Shor.
<https://arxiv.org/abs/quant-ph/9809016>

General Quantum Computing (Context & Student Resources)

- Quantum Computing High School Module (Open) — course module for beginners.
<https://arxiv.org/abs/1905.00282>
- Quantum computing textbook overview (“Quantum Computing: A Gentle Introduction”) — easier than research papers.
https://en.wikipedia.org/wiki/Quantum_Computing%3A_A_Gentle_Introduction

Gender Gap in STEM

- AAUW: The STEM Gap (full report) — accessible report on gender disparities.
<https://www.aauw.org/resources/research/the-stem-gap/>
- EETimes: More women in quantum technology article — industry context.
<https://www.eetimes.eu/wanted-more-women-in-quantum-technologies/>
- NSF Data on Women in Physics — official stats with breakdowns.
<https://ncses.nsf.gov/archived?url=https%3A%2F%2Fwww.nsf.gov%2Fstatistics%2F2017%2Fnsf17310%2Fdigest%2Ffod-women%2Fphysics.cfm>
- Statista Gender Stats for Developers — free preview charts showing global developer gender ratios.
<https://www.statista.com/statistics/1128823/worldwide-developer-gender/>
- “Why So Few?” PDF on gender gap in STEM fields — educational summary of causes and barriers.
<https://docslib.org/doc/2937118/why-so-few-women-in-science-technology-engineering-and-mathematics-why-so-few-women-in-science-technology-engineering-and-mathematics>
- Crash Course Computer Science & Physics (YouTube) — free video series covering microchips, computing history, quantum concepts.
https://www.youtube.com/playlist?list=PL8dPuuaLjXtPNZwz5_o_5uirJ8gQXnhEQ

Evolution of Quantum Computing and DiVincenzo Criteria - Prof David DiVincenzo

Popular Science (2022) — Journey to the Center of a Quantum Computer

- <https://www.popsci.com/quantum-computer-photos/>
- <https://www.ibm.com/think/topics/quantum-computing>

IBM — Quantum Computer Animation

- <https://www.youtube.com/watch?v=JhHMJCUMq28>
- <https://quantum.cloud.ibm.com/learning/en>

DiVincenzo (2009) — Fault-tolerant superconducting qubits

- <https://milyus.io/ai-quick-reference/what-is-quantum-error-correction-and-why-is-it-important-for-quantum-computing>
- <https://arxiv.org/abs/0906.2187>
- <https://algassert.com/post/1715>

IBM Quantum Development Roadmap

- <https://research.ibm.com/blog/quantum-development-roadmap>
- <https://www.ibm.com/quantum/roadmap>

Timeline — Quantum Computers (1960 → 2016)

- https://en.wikipedia.org/wiki/Timeline_of_quantum_computing_and_communication

Feynman (1982) — Simulating physics with computers

- <https://plato.stanford.edu/archives/fall2004/entries/qm/>
- <https://arxiv.org/abs/quant-ph/0207088>
- <https://www.youtube.com/watch?v=Q1YqgPAtzho>

Landauer (1960) — Heat & computation

- <https://plato.stanford.edu/entries/information-entropy/>
- <https://arxiv.org/abs/1410.4480>
- <https://www.quantamagazine.org/tag/quantum-computing/>

Holevo (1975) — Limits on quantum communication

- <https://quantum.country/qcvc> (section on communication)
- https://en.wikipedia.org/wiki/Holevo%27s_theorem

Manin (1980) — Computable & uncomputable

- <https://plato.stanford.edu/entries/computation-physicalsystems/>
- <https://www.quantamagazine.org/what-is-the-true-promise-of-quantum-computing-20250403/>

ISI Institute (1994–2006 pictures)

- <https://www.quantamagazine.org/what-is-the-true-promise-of-quantum-computing-20250403/>
- https://www.livescience.com/technology/computing/history-of-quantum-computing-key-moments-that-shaped-the-future-of-computing?utm_source=chatgpt.com

DiVincenzo (1995) — Universal two-qubit gates

- <https://quantum.country/qcvc> (gates section)
- https://en.wikipedia.org/wiki/Universal_quantum_gate
- <https://journals.aps.org/prb/abstract/10.1103/PhysRevA.51.1015>

Di Vincenzo's Criteria

- https://en.wikipedia.org/wiki/DiVincenzo%27s_criteria

Mermin (2007) — Quantum Computer Science

- https://dn790009.ca.archive.org/0/items/QuantumInformation/quantum_%20computer_%20science.pdf
- Overview: https://en.wikipedia.org/wiki/Quantum_Computer_Science

Bennett (2003) — Reversible computation

- Free paper: <https://arxiv.org/abs/physics/0210005>

Margolus (2020) — Limits on classical computation

- <https://www.youtube.com/watch?v=iYEfGwXI8AM>
- Concept explainer:
<https://www.quantamagazine.org/how-can-ai-researchers-save-energy-by-going-backward-20250530/>

Quantum Computing for Power & Energy Systems - Sayonsom Chanda

Charles Babbage

- https://en.wikipedia.org/wiki/Analytical_engine
- computinghistory.org.uk
- <https://www.computinghistory.org.uk/det/11409/Charles-Babbage-publishes-a-paper-describing-the-Analytical-Engine/>

Project Gutenberg

- <https://www.gutenberg.org/ebooks/71292>

Richard P. Feynman — Simulating Physics with Computers (1982)

- https://chem.libretexts.org/Bookshelves/Physical_and_Theoretical_Chemistry_Textbook_Maps/Quantum_Tutorials_%28Rioux%29/08%3A_Quantum_Teleportation/8.42%3A_A_Summary_of_Feynman%27s_Simulating_Physics_with_Computers
- ArXiv Paper Archive (free download)
https://archive.org/details/richard_feynman_simulating_physics_with_computers

Society of Environmental Journalists (SEJ) coverage

- <https://www.sej.org/headlines/summer-blackouts-wheezing-power-grid-leaves-states-risk>

Axios summary (free news)

- <https://wwwaxios.com/2022/06/03/blackouts-energy-climate>

NREL Docs

- <https://docs.nrel.gov/docs/fy24osti/87308.pdf>

Quantum for Electric Grids - Aditi Lal, Varun teja Puram, Mackenson Polché

Smart Grids & Sustainable Cities

- <https://www.wealthformula.com/blog/smart-grids-paving-the-way-for-sustainable-urban-development/>
- <https://www.nrel.gov/grid/power-electronics-inverters>

Schuld (2021) — Quantum Machine Learning Models: A Review

- <https://arxiv.org/abs/2012.09265>

Qiskit Textbook – Quantum Machine Learning (excellent for students)

- <https://learn.qiskit.org/course/machine-learning>

PennyLane QML demos (interactive & intuitive)

- <https://pennylane.ai/qml/>

Fujii & Nakajima (2017) — Quantum Reservoir Computing

- https://en.wikipedia.org/wiki/Echo_state_network
- <https://arxiv.org/abs/2001.06103>
- <https://arxiv.org/abs/1708.00758>

Nakajima et al. (2021) — Spatial Multiplexing in Quantum Reservoir Computing

- <https://arxiv.org/abs/2010.13236>
- <https://uw-madison-datasience.github.io/machine-learning-novice-sklearn/04-ensemble-methods.html>

Rasmussen & Williams (2006) — Gaussian Processes for Machine Learning

- <http://www.gaussianprocess.org/gpml/>

Distill-style explanation (very intuitive)

- <https://distill.pub/2019/visual-exploration-gaussian-processes/>

StatQuest video (excellent for beginners)

- <https://www.youtube.com/watch?v=UBDgSHPxVME>

Jaeger (2001) — Echo State Networks

- <https://www.ai.rug.nl/minds/uploads/EchoStatesTechRep.pdf>

Havlíček et al. (2019) — Quantum-Enhanced Feature Spaces

- <https://arxiv.org/abs/1804.11326>

Qiskit tutorial on quantum kernels

- <https://learn.qiskit.org/course/machine-learning/quantum-kernel-methods>

Huang et al. (2021) — Power of Data in Quantum Machine Learning

- <https://arxiv.org/abs/2011.01938>

Short explanatory article

- <https://quantum-journal.org/papers/q-2021-06-01-463/>

Quantum Research Lab Tour - Superconducting & Cryogenic Setups - Jeff Thompson

Saffman, Walker, Mølmer (2010)

- <https://arxiv.org/abs/0909.4777>

Beginner-friendly overview (lecture notes)

- <https://www.phys.uconn.edu/~rcote/Projects/Rydberg/Rydberg.html>

Review summary of early Rydberg gates

- <https://arxiv.org/abs/1702.08825>

Physics Today explanation (accessible)

- <https://physicstoday.aip.org/editorial/in-praise-of-prizes>

Review on optical tweezer arrays

- <https://arxiv.org/abs/2004.10646>

Harvard/MIT lecture slides

- <https://arxiv.org/pdf/2002.07413>

Gate fidelity tutorial

- <https://arxiv.org/abs/1912.01724>

Neutral-atom quantum computing review

- <https://arxiv.org/abs/2011.08843>

Quantum simulation with Rydberg atoms (review)

- <https://arxiv.org/abs/2104.11293>

Beginner explanation of quantum simulators

- <https://www.quantamagazine.org/analog-vs-digital-the-race-is-on-to-simulate-our-quantum-universe-20250905/>

Quantum metrology primer

- <https://arxiv.org/abs/2001.06224>

Clock-based quantum sensing overview

- <https://www.nist.gov/publications/quantum-metrology>

Surface codes explained visually

- <https://quantum.cloud.ibm.com/learning/en/courses/foundations-of-quantum-error-correction/correcting-quantum-errors/introduction>

Error correction lecture notes

- <https://arxiv.org/abs/1907.11157>

Neutral atom hardware overview

- <https://arxiv.org/abs/2203.09510>

Company-agnostic neutral atom comparison

- <https://quantumcomputingreport.com/harvard-and-collaborators-demonstrate-scalable-fault-tolerant-architecture-with-448-neutral-atom-qubits/>

Introduction to Quantum Computing and Qubits - Prof William Oliver

Key Dates in Computing & Quantum Computing (Context Timeline)

- <https://www.computerhistory.org/timeline/>
- <https://quantum.country/qcvc>

Rutherford (1911) & Bohr (1913)

- <https://www.khanacademy.org/science/ap-physics-2/x0e2f5a2c%3Amodern-physics/x0e2f5a2c%3Aatoms-and-light>
- [https://chem.libretexts.org/Bookshelves/Introductory_Chemistry/Book%3A_Introductory_Chemistry_\(CK-12\)/05%3A_Electrons_in_Atoms/5.06%3A_Bohr%27s_Atomic_Model](https://chem.libretexts.org/Bookshelves/Introductory_Chemistry/Book%3A_Introductory_Chemistry_(CK-12)/05%3A_Electrons_in_Atoms/5.06%3A_Bohr%27s_Atomic_Model)

Shor (1994–1995) — Factoring

Quantum Country (excellent pedagogy)

- <https://quantum.cloud.ibm.com/docs/en/tutorials/shors-algorithm>
- <https://news.mit.edu/2016/quantum-computer-end-encryption-schemes-0303>

Grover (1996)

- <https://quantum.country/search>
- <https://qiskit.org/textbook/ch-algorithms/grover.html>

HHL (2009) — Linear Systems

- https://cocalc.com/github/quantum-kittens/platypus/blob/main/notebooks/ch-applications/hhl_tutorial.ipynb
- https://github.com/Qiskit/textbook/blob/main/notebooks/ch-applications/hhl_tutorial.ipynb

Lloyd (1996) — Universal Quantum Simulators

- <https://www.quantamagazine.org/analog-vs-digital-the-race-is-on-to-simulate-our-quantum-universe-20250905/>
- <https://arxiv.org/abs/quant-ph/9603028>

QAOA — Farhi et al. (2014)

- <https://quantum.cloud.ibm.com/docs/tutorials/quantum-approximate-optimization-algorithm>
- <https://qiskit.org/textbook/ch-applications/qaoa.html>

Sipser (2012)

- <https://people.csail.mit.edu/rw/6.045-2019/>

Theory of computation (Khan-style)

- <https://cs.stackexchange.com/questions/404/what-is-the-theory-of-computation>

Quantum error correction explained visually

- <https://quantum.cloud.ibm.com/learning/en/courses/foundations-of-quantum-error-correction/correcting-quantum-errors/introduction>

IBM-style QEC explainer

- <https://www.ibm.com/quantum/blog/advancing-quantum-error-correction>

Quantum internet overview

- <https://pme.uchicago.edu/news/quantum-internet-explained-0>
- <https://arxiv.org/abs/1809.01030>

Visualizing Quantum Mechanics - Dr. Shaeema Zaman

University of Waikato – NanoLearn (2013)

- <https://www.sciencelearn.org.nz/concepts/nanoscience>

HyperPhysics: Classical Mechanics

- <https://hyperphysics.gsu.edu/hbase/chom.html>

Quantum Kate (2019)

- <https://www.youtube.com/watch?v=CXEACWZhLF4>

Schrödinger (1926) — Quantisierung als Eigenwertproblem

- <http://hyperphysics.phy-astr.gsu.edu/hbase/quantum/schr.html>
- https://chem.libretexts.org/Bookshelves/Physical_and_Theoretical_Chemistry_Textbook_Maps/Physical_Chemistry%28LibreTexts%29/03%3A_The_Schrodinger_Equation_and_a_Particle_in_a_Box/3.01%3A_The_Schrodinger_Equation

QuVis Project (University of British Columbia)

- <https://www.st-andrews.ac.uk/physics/quvis/>
- https://www.st-andrews.ac.uk/physics/quvis/simulations_html5/sims/infwell1d/infwell1d.html
- https://www.st-andrews.ac.uk/physics/quvis/simulations_html5/sims/SuperpositionStates/SuperpositionStates.html

- https://www.st-andrews.ac.uk/physics/quvis/simulations_html5/sims/blochsphere/blochsphere.html
- IBM Quantum – What is a Qubit?
- <https://www.ibm.com/think/topics/qubit>
- Quantum Entanglement
- <https://scienceexchange.caltech.edu/topics/quantum-science-explained/entanglement>
- Nielsen & Chuang (2010)
- <https://qiskit.org/textbook/>
 - <https://quantum.country/>

Quantum Internet & quantum Networking Overview - Prineha Narang

Sensors — The Other Quantum Revolution

- <https://news.cnrs.fr/articles/sensors-the-other-quantum-revolution>

Giovannetti, Lloyd & Maccone (2001) — Quantum-Enhanced Measurements

- <https://arxiv.org/abs/2001.06224>
- <https://quantum.cloud.ibm.com/learning/en/courses/foundations-of-quantum-error-correction/correcting-quantum-errors/introduction>

Komar et al. (2014) — A Quantum Network of Clocks

- <https://www.quantamagazine.org/ultra-accurate-clocks-lead-search-for-new-laws-of-physics-20180416/>
- <https://arxiv.org/abs/1911.04501>

Zhang & Zhuang (2020) — Distributed Quantum Sensing

- <https://arxiv.org/abs/2010.14744>
- <https://www.nist.gov/pml/productsservices/quantum-networks-nist/applications-quantum-networks>

Gottesman, Jennewein & Croke (2012)

- <https://www.nist.gov/pml/quantum-networks-nist/technologies-quantum-networks/quantum-memory-and-repeaters>
- <https://www.aura-astronomy.org/blog/2024/04/12/charting-the-quantum-horizons-of-astronomy/>

Quantum Networking - The Practical Distribution of Useful Entanglement - Noel Goddard

Original paper (open access):

- <https://arxiv.org/abs/2303.13866>

Wikipedia (free):

- https://en.wikipedia.org/wiki/Quantum_teleportation

Quanta Magazine (popular science):

- <https://www.quantamagazine.org/tag/quantum-teleportation/>

Quantum in Scientific Computing - Brian McDermott

Navier–Stokes (1822–1845)

- https://en.wikipedia.org/wiki/Navier%E2%80%93Stokes_equations

MIT OpenCourseWare – Fluid Dynamics (free lectures):

- <https://ocw.mit.edu/courses/18-357-interfacial-phenomena-spring-2005/pages/lecture-notes/>

Fourier (1822) – Heat & Diffusion

- <https://archive.org/details/analyticaltheory00fourrich>
- https://en.wikipedia.org/wiki/Fourier%27s_law

Boltzmann (1872) – Statistical Mechanics

- https://en.wikipedia.org/wiki/Boltzmann_equation

Cercignani lecture-style notes (free PDF):

- <https://bpb-us-e1.wpmucdn.com/sites.psu.edu/dist/c/168431/files/2023/07/boltz.pdf>

Schrödinger (1926)

- https://en.wikipedia.org/wiki/Schr%C3%B6dinger_equation

MIT OCW – Quantum Mechanics I:

- <https://ocw.mit.edu/courses/8-04-quantum-physics-i-spring-2016/>

Monte Carlo Methods

- https://en.wikipedia.org/wiki/Monte_Carlo_method

Lattice Boltzmann Methods

- https://en.wikipedia.org/wiki/Lattice_Boltzmann_methods

Gaussian Processes

- <http://www.gaussianprocess.org/gpml/chapters/>
- <https://distill.pub/2019/visual-exploration-gaussian-processes/>

Bayesian Neural Networks

- <https://www.inference.org.uk/mackay/PhD.html>
- https://en.wikipedia.org/wiki/Bayesian_neural_network

GANs (Goodfellow 2014)

- <https://developers.google.com/machine-learning/gan>

Physics-Informed ML (PINNs)

- <https://arxiv.org/abs/2001.04536>
- <https://github.com/maziarraissi/PINNs>

Chuang & Barba (2023)

- <https://arxiv.org/abs/2306.00230>
- https://barbagroup.github.io/essential_skills_RRC/

PNAS paper (free PDF):

- <https://www.pnas.org/doi/10.1073/pnas.1810286115>

Nat Comm article (open):

- <https://www.nature.com/articles/s41467-020-17142-3>

Bony et al. (2015)

- https://en.wikipedia.org/wiki/Cloud_feedback

NASA explainer:

- <https://earthobservatory.nasa.gov/features/Clouds>

Chandrasekhar (1960); Mayer (2009)

- <https://archive.org/details/radiativetransfe0000chan>
- <https://atmos.washington.edu/~robwood/teaching/301/>

Harrow, Hassidim & Lloyd (2009)

- https://en.wikipedia.org/wiki/Quantum_algorithm_for_linear_systems_of_equations

Aaronson (2015)

- <https://www.ecmwf.int/en/about/media-centre/news/2015/quiet-revolution-numerical-weather-prediction>

Quantum complexity primer:

- <https://quantum.country/>

Remote Sens. 7(2), 1667–1701

- <https://www.mdpi.com/2072-4292/7/2/1667>

NASA remote sensing basics:

- <https://earthdata.nasa.gov/learn/backgrounder/remote-sensing>

Quantum for Computational Fluid Dynamics - Madhava Syamlal

Womantum / Waer Quantum Program

- <https://doi.org/10.1023/A:1024980525678>

Van Dyke (1982); BMW Motorsport CFD (2017)

- <https://album-of-cfm.com>

Batchelor; White; Anderson

- https://en.wikipedia.org/wiki/Fluid_mechanics

MIT OpenCourseWare – Fluid Dynamics:

- <https://ocw.mit.edu/courses/18-357-interfacial-phenomena-fall-2010/>

NASA Beginner's Guide to Aerodynamics:

- <https://www.grc.nasa.gov/www/k-12/airplane/>

Kolmogorov (1941); Pope (2000)

- https://en.wikipedia.org/wiki/Kolmogorov_microscale

Turbulence overview:

- <https://en.wikipedia.org/wiki/Turbulence>
- https://fluids.ac.uk/files/resources/TB_16January2013.1518781067.pdf

Banerjee (2014)

- <https://hal.archives-ouvertes.fr/>

NASA turbulence in space:

- <https://science.nasa.gov/heliophysics/focus-areas/space-weather/>

Cary, Slotnick & Alonso (2020)

- <https://www.cfd2030.com/report.html>

OLCF User Guide (2023)

- <https://www.olcf.ornl.gov/olcf-resources/>

Intro to supercomputing:

- <https://www.olcf.ornl.gov/olcf-resources/for-users/>

Krüger et al. (2017)

- https://en.wikipedia.org/wiki/Lattice_Boltzmann_methods
- <https://www.lattice-boltzmann.com/foreword/>

Quantum CFD Overviews

- <https://arxiv.org/abs/2409.09736>
- <https://arxiv.org/abs/2406.18749>

Quantum computing for PDEs:

- <https://quantum-journal.org/papers/q-2021-11-10-574/>

McClean et al.; Cerezo et al.; Tilly et al.

VQA explained:

- https://en.wikipedia.org/wiki/Variational_quantum_algorithm
- <https://arxiv.org/abs/2012.09265>

VQE intuition:

- <https://quantum.cloud.ibm.com/learning/courses/quantum-diagonalization-algorithms/vqe>

Lubasch et al.; Todorova & Steijl; Jaksch et al.

- <https://arxiv.org/abs/1904.12469>
- <https://arxiv.org/abs/2002.02843>

Streamfunction–vorticity explanation:

- <https://en.wikipedia.org/wiki/Vorticity>

Sim, Johnson & Aspuru-Guzik (2019)

- https://pennylane.ai/qml/demos/tutorial_expressivity_fourier_series

Noise & barren plateaus:

- <https://www.nature.com/articles/s41467-021-27045-6>

NSF Quantum-Enhanced CFD Award

- https://www.nsf.gov/awardsearch/showAward?AWD_ID=2318334

Ion Trap Quantum lab tour - Quantum Hardware in action - Masako Yamada

IonQ Blog:

<https://ionq.com/blog/april-14-2022-peter-chapman-letter-to-stockholders>

Trapped-ion quantum computing (core concept)

- https://en.wikipedia.org/wiki/Trapped_ion_quantum_computer
- <https://www.nist.gov/programs-projects/quantum-computing-trapped-ions>

Quantum hardware comparison (neutral, academic):

- <https://www.ibm.com/quantum/hardware>

Cerezo et al. (2021) – Variational quantum algorithms

- <https://arxiv.org/abs/2012.09265>

Cryogenic & Cooling Infrastructure for Quantum Hardware - Corban Tillemann-Dick

Where Will Quantum Computers Create Value—and When? (BCG, 2019)

<https://www.bcg.com/publications/2019/quantum-computers-create-value-when>

Future of HPC, Quantum Computing, and AI - Stephan Kister

Par-Tec Quantum + HPC overview: <https://par-tec.com/qc-ai/>

- <https://orcacomputing.com/partec-ag-and-orca-computing-announce-partnership-to-deliver-quantum-accelerated-ai-factories/>

Orca Computing. (n.d.). Home.

- <https://orcacomputing.com>

ORCA Computing

- <https://quantumcomputingreport.com/orca-and-partec-partner-to-integrate-room-temperature-quantum-systems-into-Europe's-largest-AI-supercomputers/>

Quantum Computing and High Performance Computing - Katherine Klymko, Daan Camps

U.S. Department of Energy, Office of Science

- <https://science.osti.gov/>

National Energy Research Scientific Computing Center (NERSC)

- <https://www.nersc.gov/about/>

Darbha et al. (2404.12360) — False vacuum decay and nucleation dynamics in neutral atom systems

- <https://arxiv.org/abs/2404.12360>

Lee et al. (2019) — Generalized unitary coupled cluster wave functions

- <https://doi.org/10.1021/acs.jctc.8b01004>

von Burg et al. (2021) — Quantum enhanced computational catalysis

- <https://doi.org/10.1103/PhysRevResearch.3.033055>

Charlebois et al. (2020) — Hubbard model & tensor networks

- <https://doi.org/10.1103/PhysRevX.10.041039>

Geim & Novoselov (2007) — The rise of graphene

- <https://doi.org/10.1038/nmat1849>

Scalable Quantum Computing and Hybrid Architectures - John Levy

Seeqc — Company Overview

- <https://seeqc.com/about/>

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