

## Publications – Quantum POD-Galerkin

- Veresko, M., Cheng, MC. Physics-informed reduced-order learning from the first principles for simulation of quantum nanostructures. *Sci Rep* **13**, 6197 (2023). <https://doi.org/10.1038/s41598-023-33330-9>
- Jiang, Lin, Martin Veresko, Yu Liu & Ming-C. Cheng, "An effective physics simulation methodology based on a data-driven learning algorithm," Proceedings of the Platform for Advanced Scientific Computing Conference. 2022. <https://dl.acm.org/doi/10.1145/3539781.3539799>
- Veresko, Martin, and Ming-Cheng Cheng. "An Effective Simulation Methodology of Quantum Nanostructures based on Model Order Reduction," 2021 Int'l Conf. on Simulation of Semiconductor Processes and Devices (SISPAD), 2021. <https://ieeexplore.ieee.org/document/9592599>
- Cheng, Ming-C. "A reduced-order representation of the Schrödinger equation," AIP Advances 6.9 (2016): 095121. <https://doi.org/10.1063/1.4963835>
- Cheng, Ming-C. "Quantum element method for quantum eigenvalue problems derived from projection-based model order reduction," AIP Advances 10.11 (2020): 115305. <https://doi.org/10.1063/5.0018698>