Libor Veis

Curriculum Vitae

*Research interests in theoretical quantum chemistry,
multireference methods, tensor networks, quantum algorithms
for chemistry, quantum information theory, computer science*

---------- Personal Details

Date of birth:	May 16, 1984
Marital status:	married, two children

---------- Education

2008–2012	**Ph.D. in physical chemistry**, *Charles University in Prague, Faculty of Science*. Thesis: "Quantum computing approach to non-relativistic and elativistic molecular energy calculations", Supervisor: Dr. J. Pittner (J. Heyrovský Institute of Physical Chemistry, AS CR).
2010	**RNDr. degree**, *Charles University in Prague, Faculty of Science*.
2006–2008	**MSc. in physical chemistry**, *Charles University in Prague, Faculty of Science*, *summa cum laude*.
2003–2006	**BSc. in general chemistry**, *Charles University in Prague, Faculty of Science*, *summa cum laude*.

---------- Professional Activities

Employment

2003–present	**Researcher, group leader**, *J. Heyrovský Institute of Physical Chemistry, AS CR*.

Research experience

2017 (Jul - Aug)	**Visiting researcher**, *Group of Prof. A. Aspuru-Guzik*, Harvard University, Cambridge USA.
2016 (Sep - Nov)	**Visiting researcher**, *Group of Prof. A. Aspuru-Guzik*, Harvard University, Cambridge USA.
2014–2015	**Postdoctoral stay**, *Group of Prof. Ö. Legeza*, Wigner Research Centre for Physics, Hungarian Academy of Sciences, Budapest.
2014 (Jun - Jul)	**Research visit**, *Group of Prof. T. Yanai*, Institute for Molecular Science, Okazaki, Japan.
2010 (Dec)	**Study visit**, *Winter School in Theoretical Chemistry*, Finland.
2010 (Jul)	**Study visit**, *Sostrup Summer School in Quantum Chemistry*, Denmark.

---------- Invited Lectures

- Chemistry + Materials HPC/AI seminar series, Intel, 2022 (Nov).
- Seminar at CATRIN-RCPTM, Palacký University, Olomouc, Czech Republic, 2022 (Sep).
- WATOC Congress 2020 (organized in 2022), Vancouver, Canada.
- American Physical Society Meeting 2022 (March), Chicago, USA.
- Autumn School on Correlated Electrons, Jülich, Germany, 2021 (Sep).

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- Lorentz-CECAM workshop on 'Useful Quantum Computing for Quantum Chemistry', 2021 (Feb).
- Seminar of the Department of Physical and Theoretical Chemistry, University of Graz, Austria, 2019 (Oct).
- 7th Japan-Czech-Slovak (JCS) Symposium on Theoretical and Computational Chemistry 2018, Prague, Czech Republic.
- Aspuru-Guzik group seminar, Harvard University, Cambridge, USA, 2016 (Jun).
- Winter School on Quantum Computing for Quantum Chemistry 2012, Indian Wells, USA.
- 4th Japan-Czech-Slovak (JCS) Symposium on Theoretical and Computational Chemistry 2011, Liblice, Czech Republic.

Pedagogical activity

2022 (Oct) **Workshop**, *Autumn School of Quantum Chemistry*, J. Heyrovský Institute of Physical Chemistry, AS CR.

2016–present **Lectures**, *Tensor network methods and DMRG in quantum chemistry*, Charles University in Prague, Faculty of Mathematics and Physics.

2008–2014 **Exercises for lectures**, *Theoretical and Computational Chemistry*, Charles University in Prague, Faculty of Science.

2010, 2013 **Exercises for lectures**, *Quantum Computers*, Charles University in Prague, Faculty of Mathematics and Physics.

Supervised students

- 3 supervised Ph.D. (J. Brandejs, defended 2022, P. Beran, M. Matoušek), 1 co-supervised Ph.D. (A. Antalík, defended 2021), and 1 MSc. (M. Matoušek, defended 2020) students at Charles University in Prague, Faculty of Mathematics and Physics.

Awards

- J. Heyrovský Young Scientist fellowship (2017-2022).
- Post-doc fellowship for perspective young scientists provided by the Academy of Sciences CR (2014/2015).
- Prize for the best poster presentation at the conference Molecular Quantum Mechanics 2010, May 24-29, 2010, University of California, Berkeley, USA.

Grant projects

- Grant agency of the Czech Republic, Project "Accurate and efficient DMRG-based methods for extended molecules" (2023-2025).
- SPEC project, U.S. Department of Energy, Office of Science, Office of Basic Energy Sciences (2022-2026), co-PI.
- Grant agency of the Czech Republic, Project "Massively parallel tensor network methods for strongly correlated quantum chemistry" (2018-2020).
- Grant agency of the Charles University, Project "Quantum chemistry on quantum computers" (2010-2012).

Publications

- 41 peer-reviewed publications, about 1000 citations, h-index 16