

EDIT MÁTYUS

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Personal details

Date and place of birth: 22 July 1983, Budapest, Hungary
Nationality: Hungarian
Family status: married, two children (*2013, *2016)

Education

2010 **PhD in Theoretical Chemistry (summa cum laude), ELTE**
2006 **Master of Science in Chemistry (with Honours), ELTE**
2001 Final exam (excellent), Apáczai Grammar School, Budapest, science class

Professional experience

01/09/2025– **Professor, Institute of Chemistry, ELTE**
2022–2025 **Associate Professor (with habilitation), ERC group leader, Institute of Chemistry, ELTE**
& Deputy Director for Research of the Institute of Chemistry, 2023–2024
2016–2022 **Assistant Professor (with tenure since 2018), ERC group leader, Institute of Chemistry, ELTE**
2014–2016 **Post-Doc, Department of Chemistry, University of Cambridge**
2012–2016 **Research Fellow, Institute of Chemistry, ELTE, Budapest**
2010–2011 **ETH Fellow, Laboratory of Physical Chemistry, ETH Zürich**

Short research stays

2022–2023 **DFG Mercator Fellow (visiting professor), University of Göttingen** (several short visits)
2019 **Visiting professor at ETH Zürich** (4 months)
Before PhD degree: Princeton (2009, 3 months), Center for Computational Chemistry, University of Georgia, USA (2009, 3 weeks), HPC-Europa Programme, Stuttgart (2007, 6 weeks), Georg-August-Universität, Göttingen (2005, 6 weeks)

Grants, fellowships

2025 **EXCELLENCE, National Research, Development and Innovation Office** (400 kEUR, 2 years)
2024 **Momentum Grant, Hungarian Academy of Sciences** (500 kEUR, 5 years)
2022 **Young Researcher Grant (FK), Hungarian NKFIH** (100 kEUR, 4 years)
2019 **ERC Starting Grant** (1 425 kEUR, 5 years)
2016 **PROMYS Grant of the Swiss National Science Foundation** (625 kCHF, 5 years)
2016 **Premium Postdoctoral Fellowship of the Hungarian Academy of Sciences** (100 kEUR, declined)
2013 **János Bolyai Research Fellowship of the Hungarian Academy of Sciences** (14 kEUR, declined)
2010 **ETH Fellowship** (210 kCHF)
Before PhD degree: Hungarian State Eötvös Fellowship (2009, 3 months), Hungarian State Doctoral Fellowship (3 years), Scholarship of the Hungarian Republic (2003, 2004, 2005), Scholarship of the Prime Minister of Hungary to Science Olympiad medalists (2000, 2001)

Awards and prizes

2024 **Polányi Medal** (Physical Chemistry Main Prize) of the **Hungarian Academy of Sciences**
2024 **Ignaz L. Lieben Award** of the **Austrian Academy of Sciences**
2023 **Annual Medal** of **IAQMS: International Academy of Quantum Molecular Science**
2022 **Elected Member of the Youth Academy of the Hungarian Academy of Sciences**
2021 **Dirac Medal** of **WATOC: World Association of Theoretical and Computational Chemists**
2012 **Hungarian l'Oréal-UNESCO Prize for Women in Science**
2011 **Junior Prima Prize** in 'Hungarian Science' category
2010 **Wiley Poster Prize** on the 46th Symposium for Theoretical Chemistry, Münster, Germany
Before PhD degree: Kajtár Márton Prize (ELTE, 2009), 2nd prize on the Hungarian Student Research Competition (2004), Excellent Student of the Faculty (2003), Szent-Györgyi Commemorative Medal (2000, 2001), silver medal on 33rd IChO (Mumbai, 2001), silver medal on 32nd IChO (Copenhagen, 2000)

Membership

- 2025–2026 **15th REHE International Committee** member
2025(–2027) Editorial Advisory Board Member of **ACS Physical Chemistry Au**
2024(–2025) Editorial Advisory Board Member of the **Journal of Chemical Theory and Computation (JCTC)**
2021–2023 Editorial Board Member of **Molecular Physics**
2015–2019 management committee member of Hungary in **Molecules in Motion: MOLIM COST Action**
2012– member of the **Material and Molecular Structure Working Group (Physical Chemistry Division) of the Hungarian Academy of Sciences**

Languages

Hungarian (mother tongue), English (C1: CAE, 2010), French (C1: DALF, 2008), German (B2,C1: courses at Migros Klubschule), Italian (B2: Hungarian State Exam, 2003)

Teaching experience

ELTE (in Hungarian / English): **more, than 12 semesters** taught in various subjects of physical chemistry
St. Catharine's College, University of Cambridge (2014): **1 term**, supervision of 3 groups, Theoretical Techniques
ETH Zürich (2010-11): **4 semesters**, exercise hours (and 3 lectures replacement) in quantum mechanics and relativistic quantum chemistry

Supervision

ELTE, 2016–: 4 PhD students (3 chemistry, 1 physics; Hungarian State & ÚNKP scholarships), 8 BSc & MSc students, Excellent student of the Faculty (2), 1st and 2nd Places & Special Prize on the Hungarian Chemistry & Physics Student Research Competitions (2021, 2023, 2025), 9 post-docs (1 Junior Research Prize, 1 Bolyai Fellowship of the Hungarian Academy of Sciences, 1 individual MSCA post-doctoral fellowship, 141 kEUR)
ETH Zürich: co-supervision of BSc and PhD students with Prof. Reiher

Invited talks on conferences and seminars

planned:

- 2027 XII ISTCP: Triennial Congress of the International Society for Theoretical Chemical Physics, Corrientes, Argentina
2026 15th International Conference on Relativistic Effects in Heavy-Element Chemistry and Physics, Okazaki, Japan
2026 ESPA 2026: Electronic Structure Principles and Applications, Salamanca, Spain
2026 TSRC Workshop on the Spectroscopy and Dynamics of Coupled Anharmonic Vibrations of Floppy Molecular Systems, Telluride, CO, USA
2026 18th ICQC, International Congress of Quantum Chemistry, Berkeley, CA, USA [*plenary*]
2026 XXVth SASP: Symposium on Atomic, Cluster and Surface Physics, Obergurgl, Austria

completed:

- 2025 Szilárd Leó Kolloquium, BME, Budapest University of Technology, Institute of Physics, Budapest
2025 XXXIV ICPEAC: International Conference on Photonic, Electronic, and Atomic Collisions, Sapporo, Japan
2025 New Challenges for Ab Initio Theory in Molecular Science, Warsaw, Poland
2025 13th WATOC: Triennial Congress of the World Association of Theoretical and Computational Chemists, Oslo, Norway [*plenary*]
2025 Polányi Medal Lecture, Hungarian Academy of Sciences, Budapest, Hungary
2025 Ignaz Lieben Medal Lecture, Austrian Academy of Sciences, Vienna, Austria
2024 11th ISTCP: Triennial Congress of the International Society for Theoretical Chemical Physics, Qingdao, China
2024 14th International Conference on Relativistic Effects in Heavy-Element Chemistry and Physics, The Netherlands
2024 8th High Dimensional Quantum Dynamics Workshop: Techniques, Challenges and Applications, Hamburg, Germany
2024 18th 'Strasbourg Seminars': European Seminar on Computational Methods in Quantum Chemistry (ESCMQC), Copenhagen, Denmark
2024 AMOC 2024: Atoms, Molecules and Clusters in Motion, Paris, France
2024 Bothe Seminar, Max Planck Institute for Nuclear Physics, Heidelberg, Germany
2023 Theoretical Chemistry Seminar, Department of Chemistry, University of Cambridge, UK
2023 Warwick Centre for Predictive Modelling Seminar, University of Warwick, UK
2023 17th ICQC, International Congress of Quantum Chemistry, Bratislava, Slovakia
2023 12th International Meeting on Atomic and Molecular Physics and Chemistry (IMAMPC), Innsbruck, Austria
2023 CAS Workshop: Molecular Quantum Dynamics, Hylleraas Centre for Quantum Molecular Sciences, Oslo, Norway

- 2023 Numerical Methods in Quantum Chemistry, UiT, Tromsø, Norway
- 2023 Intermolecular Interactions: New Challenges for ab initio Theory, Telluride Science Research Center, CO, USA
- 2022 REHE2020-22: 13th International Conference on Relativistic Effects in Heavy-Element Chemistry and Physics, Assisi, Italy
- 2022 HBOND2022: Horizons in Hydrogen Bond Research, Bilbao, Spain
- 2022 12th WATOC: Triennial Congress of the World Association of Theoretical and Computational Chemists, Vancouver, Canada
- 2022 11th PSAS: International Conference on Precision Physics of Simple Atomic Systems, Warsaw, Poland
- 2022 International Bunsen Discussion Meeting, Göttingen, Germany
- 2022 61st Sanibel Symposium, St. Simons Island, GA, USA
- 2021 Chemical Physics Seminar, Quantum Theory Project, University of Florida [online]
- 2021 AttoChem Network: Young Scientist Symposium [online-Milan]
- 2021 27th HRMS: High Resolution Molecular Spectroscopy [online-Cologne]
- 2021 Precision Spectroscopy of Molecular Hydrogen [online-Amsterdam]
- 2021 Relativistic Quantum Chemistry Webinar, REHE [online-Assisi]
- 2021 Chemistry Seminar, University of Sussex [online]
- 2021 Theoretical Chemical Physics Seminar, University of Luxemburg [online]
- 2020 BENCH Workshop, University of Göttingen
- 2020 Physical Sciences Seminar, IST Austria
- 2019 PC Kolloquium, Laboratory of Physical Chemistry, ETH Zürich
- 2019 10th ISTCP: Triennial Congress of the International Society for Theoretical Chemical Physics, Tromsø, Norway
- 2019 Mathematical Methods in Quantum Molecular Dynamics, Oberwohlfach Workshop, Germany
- 2019 Intermolecular Interactions: New Challenges for ab initio Theory, Telluride Science Research Center, CO, USA
- 2019 APS March Meeting, Focus session: Precision spectroscopy experiments and computations for few-particle atoms, molecules, and excitonic complexes, Boston, USA
- 2018 International Workshop on Molecular Quantum Dynamics and Kinetics, Athens, Greece
- 2018 AMOC, Budapest, Hungary
- 2017 Molecular Physics Seminar, CFEL-DESY, Hamburg
- 2017 COST-MOLIM WG Meeting: Time-resolved Methods, Zürich, Switzerland
- 2016 COST-MOLIM WG Meeting: Energy-resolved Methods, Helsinki, Finland
- 2016 Mathematical Methods for Ab Initio Quantum Chemistry, Nice, France
- 2016 Mini-symposium on Theoretical Molecular Quantum Dynamics, ETH Zürich, Switzerland
- 2015 Physical Chemistry Seminar, Department of Chemistry, University of Basel, Switzerland
- 2015 AMOPP Seminar, Department of Physics and Astronomy, UCL, London, UK
- 2014 PC Kolloquium, Laboratory of Physical Chemistry, ETH Zürich
- 2014 Informal Theoretical Chemistry Seminar, University of Cambridge, UK
- 2013 23rd Colloquium on High Resolution Molecular Spectroscopy, Budapest, Hungary
- 2012 Central European Symposium on Theoretical Chemistry, Mariapfarr, Austria
- 2012 Group Seminar, Department of Quantum Optics and Quantum Information, Wigner Research Center for Physics, Budapest, Hungary

Popular science & outreach

- [Sigma—A holnap világa](#) [in Hungarian], Inforádió, October 2025
- [Quantum effects with ppb precision](#) [in interview in Hungarian], Journal of the Hungarian Chemical Society, 2022
- Science Day, Chemistry, ELTE, May 2022
- Fazekas Mihály Grammar School, March 2020
- Apáczai Grammar School, March 2020
- ELTE, Open Day of the Institute of Chemistry, January 2020
- Apáczai Grammar School, December 2012
- ELTE 'Alkímia ma' lecture series for high-school students, October 2012
- ELTE Bolyai College, September 2012

Up-to-date publication list: [Google Scholar link](#)