

Curriculum Vitae



Personal information

First name(s) / Surname(s)

Katalin Kovács

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Nationality

Romanian

Date of birth

8 April 1980

Gender

Female

Work experience

Dates

Dec. 2007 – present (except periods listed further on)

Occupation or position held

Research assistant, Scientific researcher, Senior researcher III, II.

Main activities and responsibilities

- Modelling the interaction of strong ultrashort laser pulses with atomic and molecular gases;
- High-order harmonic generation (HHG), attosecond pulse formation: modeling and correlation with experiments, with special focus on the HHG with two fundamental laser pulses from the same or different spectral region;
- Calculating electron trajectories in strong electromagnetic fields of arbitrary temporal or spectral profile;
- Modelling migration of chemical impurities into foodstuff;

Name and address of employer

National Institute of R&D Isotopic and Molecular Technologies, Cluj-Napoca, Romania

Type of business or sector

Scientific research

Dates

Jan. 2011 – Oct. 2011

Occupation or position held

Research fellow

Main activities and responsibilities

- Modelling high-harmonic generation and attosecond pulse formation in the presence of multiple combined electromagnetic pulses
- Development of quasi-phase-matching techniques
- Modelling THz-assisted HHG

Name and address of employer

University of Szeged, Dept. Of Optics and Quantum Electronics, Szeged, Hungary

Type of business or sector

Scientific research

Education and training

Dates

Oct. 2003 – Nov. 2007.

Title of qualification awarded

PhD

Principal subjects and occupational skills covered

Modelling magnetization phenomena using Monte Carlo methods
Study of non-thermal phase transitions

Name and type of organisation providing education and training

Babes-Bolyai University, Cluj-Napoca, Romania

Dates	Oct. 2002 – Jun. 2003.										
Title of qualification awarded	Msc										
Principal subjects and occupational skills covered	Computational Physics, Statistical Physics, Stochastic processes Building simple models to reproduce main features of complex phenomena										
Name and type of organisation providing education and training	Babes-Bolyai University, Cluj-Napoca, Romania										
Dates	Oct. 1998 – Jun. 2002.										
Title of qualification awarded	Bsc										
Principal subjects and occupational skills covered	Physics: Classical Mechanics, Electricity and Magnetism, Optics, Atomic, Molecular and Nuclear Physics, Quantum Mechanics, Statistical Physics, Solid State Physics Mathematics, Computer science										
Name and type of organisation providing education and training	Babes-Bolyai University, Cluj-Napoca, Romania										
Personal skills and competences											
Mother tongue(s)	Hungarian										
Other language(s)	Romanian, English, German										
Self-assessment European level (*)	Understanding				Speaking				Writing		
	Listening		Reading		Spoken interaction		Spoken production				
Hungarian	C2	Mother tongue	C2	Mother tongue	C2	Mother tongue	C2	Mother tongue	C2	Mother tongue	
Romanian	C2	As mother tongue	C2	As mother tongue	C2	As mother tongue	C2	As mother tongue	C2	As mother tongue	
English	C1	Advanced	C1	Advanced	C1	Advanced	C1	Advanced	C1	Advanced	
German	A2	Basic	A2	Basic	A1	Basic	A1	Basic	A1	Basic	
	(*) Common European Framework of Reference for Languages										
Communication skills	Good communication skills gained through participating as team member in several research projects. Thanks to the intense involvement in the organization of two international conferences, I improved my skills of debate, solving unexpected problems, communicating in tense situations.										
Organisational skills and competences	Project leader of 2 national scientific projects (post-doc and young team) Project member in 2 international FP7 projects (closed) and 9 national projects Organizer of 1 International Workshop, secretary of 1 international conference										
Technical skills and competences	Building physical models for critical phenomena and laser-atom interaction Developing computer codes for the implementation of the physical models										
Computer skills and competences	Operating systems Windows and Linux; programs: Origin, Microsoft Office; programming languages: Fortran, C, LaTeX										
Other skills and competences	Teaching experience at Babes-Bolyai University 2003-2007: problem solving and laboratory practice in classical mechanics, thermal physics, quantum mechanics, physics and science development										
Driving licence	B										
Additional information	Author and co-author of >35 ISI papers in the domain of statistical physics, mathematical and applied physics, nonlinear and ultrafast optics,										

	attosecond physics; H-index: 10 Independent citations: 300 (Web of Science and Scopus) Researcher ID: http://www.researcherid.com/rid/B-5629-2011 Personal page: http://www.itim-cj.ro/~kkovacs/
Attached documents	
Date: 20. 05. 2019	Signature: Kovács Katalin 