

Curriculum Vitae

Imre Ferenc Barna

Phd. in Physics

Current Position:

Staff Scientist

Wigner Research Center for Physics

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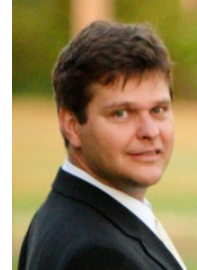
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Personal:

Born: 13 november 1972 in Budapest

Nationality: Hungarian

Foreign Languages: English, German

Marital Status: married, one daughter

Studies:

Physics Student:	1991 - 1997	Technical University of Budapest
Exchange Student:	1996	Justus-Liebig Universität Giessen, Tempus Grant
MSc. Exam:	1997	Technical University of Budapest
PhD Student:	1998 - May 2002	Justus-Liebig-Universität Giessen, Germany (group of Prof. Dr. W. Scheid & Dr. N. Grün)
PhD Exam:	May 2002	Justus-Liebig-Universität Giessen, Germany

Working Experience:

Research Assistant:	1998	Central Chemical Research Institute in Budapest
Postdoc Scientist:	June 2002 - June 2004	Max-Planck-Institute for the Physics of Compl. Syst. Dresden (group of J.M. Rost)
Postdoc Scientist:	July 2004 - July 2005	Institute for Theoretical Physics, Vienna Univ. of Techn. (group of J. Burgdörfer)
Research Associate:	August 2005 - May 2013	Atomic Energy Research Institute, Budapest
Research Associate:	from June 2012 - Sept. 2019	ELI-ALPS, Szeged, half position
Research Associate:	from May 2013 - Sept. 2019	Wigner Research Center, Hungarian Academy of Sciences Budapest
Research Associate:	from Sept. 2019 - till today	Wigner Research Center for Physics
Tutor for Biophysics: in German language	from Sept. 2009 - till today	University for Veterinary Medicine Budapest

Research Activities: (past and *present*)

Nuclear Physics: Localisation of nonlocal potentials
Atomic Physics: Ionisation of helium in collisions with any kind of charged particles
. Photoionisation of helium in short XUV laser pulses
. and coherent control
Statistical Physics: Bouncing ball billiard
Hydrodynamics: Two-Phase flows (in water and in mercury)
Quantum Mechanics: Laser-Matter Interaction
Mathematical Physics: Finding analytic solutions of partial differential equations of flows

Till January 2024 I have 78 publications in regular peer-reviewed journals with about 1000 citations according to Google Scholar.

Teaching Experience:

- giving tutorials to students in different courses (classical mechanics, classical electrodynamics and quantum mechanics) in english or german language between 1999 - 2002 in Giessen
 - supervising an undergraduate student during her Master's Thesis in 2001
 - teaching one seminar electrodynamics at the University of Szeged, Hungary
 - teaching biophysics to veterinary students at the Szent Istvan University at Budapest in German language from 2008 till today
- Script: <http://www.kfki.hu/~barnai/univet>
- teaching one semester basic physics at the Miklos Zrinyi Military Academy at Budapest in 2011
 - supervising Mr. Mihály András Pocsai under his Master Thesis in 2014 - 2015
 - right now he is my PhD. Student, investigating photoionization of Rb atoms

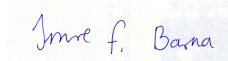
Grants/Invited Talks/Honors:

- 1996 One year Tempus Grant at the Justus Liebig University in Giessen
1998 One year DPG Grant in the first Year in the Phd
'Relativistische Effekte in der Chemie und in der Physik'
1999-2003 BAT IIa/2 Hessische Landesstelle an der Justus Liebig Universitaet, Giessen
2001 December Invitation to MPIPES Dresden (Inviter Prof. J.M. Rost)
2003 January Invitation for a talk to ATOMKI Debrecen (Inviter Dr. B. Sulik)
2004 March Invitation for a talk to TU Vienna (Inviter Prof. J. Burgdörfer)
2004 September Invited speaker at the 8th FIAC workshop ATOMKI
Debrecen, Hungary
2006 October Invited speaker at the workshop in Ljubjana about WAHA
modelling, (Inviter: Dr. Iztok Tiselj)
2008 February Invited speaker at the PANS-III International Seminar School Advanced
Pulsed Neutron Sources Workshop Dubna, Russia
2008 June Invited speaker in the Oak Ridge National Laboratory, USA
Topic: Shock-waves in mercury
2009 May Invited speaker in the JPARK JSNS Laboratory, Tokai, Japan,
Topic: Shock-waves in mercury
2010 December Writing a referee study for US Department of Energy for an Early
Career Model proposal Topic: Cavitation in mercury

2012 October Writing a critical study for the V3 Venture Capital Management Ltd.
about a Cavitation Equipment

Computer Skills:

- basic knowledge of using UNIX/LINUX/Windows operating systems
- more than twenty years practical experience with programming language Fortran 77
- practical knowledge of Latex Editor, Mathematica, Maple, Gnuplot, xmgrace, Power Point

A handwritten signature in blue ink that reads "Imre f. Barna". The signature is written in a cursive style and is placed on a light blue rectangular background.

Imre Ferenc Barna

17. January 2024, Budapest