

CURRICULUM VITAE

Personal Details

Full name: Ágnes Fülöp
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E-mail address: fulopa@mail.com

Education

Physicist Eötvös Loránd Univ. 1986
Computer mathematician Eötvös Loránd Univ. 1981

Scientific degree/Scholarships

Habil. Doct.:	Interdisciplinarity in Informatic and Physics	Eötvös Univ.	2017
Ph.D:	Num. and symb. studying	Eötvös Univ.	2006
Dr.Univ.:	Statistical Physics	Eötvös Univ.	1993
Scholarship:	Particle Physics	Eötvös Univ. Dept. of Theor. Phys. and Wigner Inst.	1997-2002

Employment/Professional experience

assoc. prof.	Eötvös Loránd Univ., Dept. of Computer Algebra	2006-
res. fell.	Wigner Inst., Dept. of Part. Phys.	1994-1997
assist. prof.	Eötvös Loránd Univ., Inst. of Solid State Phys.	1986-1993
postdoc. pos.	Justus Liebig Univ., Dept. of Theor. Phys., Giessen, Germany	1995
postdoc. pos.	Patras Univ., Dept. of Mathematics and Center for Res. and Appl. of Nonlin. Syst., Greece	1994

International Collaboration

NA61 Collaboration CERN, Switzerland 2006-2015
EGEE EU project CERN, Switzerland 2009-2011
CBM Collaboration GSI, Germany 2008-2009

Grant

CHARM-EU: Interdisciplinary research ((Eötvös Univ.))	2019-2022
EFOP: Interdisciplinarity in the Informatics, (Eötvös Univ.)	2018-2019
TAMOP: Support of research toward European Science, (Eötvös Univ.)	2009-2012
OTKA (Hungarian Acad. of Sci.):	
- Arithmetic functions, unicity sets, generalized numerical systems	2004-2007
- Classical and quantum behavior of the chaotic systems,	1992-1994
- Theory of random processes and complex structures,	1990-1993
DAAD: Giessen Univ. postdoc. position, Germany	1997

Editorial Board Member:

-Annales Universitatis Scientiarum Budapestinensis de Rolando Eötvös Nominatae
Sectio Computatorica

-Science Publishing Group
-International Journal of Intelligent Information Systems
-World Journal of Applied Physics
-American Journal of Mathematical and Computer Modelling

Membership:

-Eötvös Loránd Physical Society,
-European Physical Society
-Neumann János Computer-Science Society,
-Public body of Hungarian Academy of Sciences

Language skills: English

Scientific activity

Research Field

Numerical model in the Experimental and Theoretical Physics

1. Nonlinear behaviour of the Lattice Gauge Fields Theory (Yang-Mills Fields)
2. Reconstruction of the path trajectory in the experimental particle physics
3. Chaos in Dissipativ and Hamiltonian systems
4. Kicked model of the qbits entanglement
5. Fractals in the Generalized Number Systems

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Postdoctoral position

-Justus Liebig Univ. Dept. of Theor. Phys., Giessen, Germany	1995
-Univ. of Patras, Dept. of Mathematics and Center for Res. and Appl. of Nonlin. Syst., Greece	1994

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Grant

CHARM-EU: Interdisciplinary research ((<i>Eötvös Univ.</i>))	2019-2022
CHARM EUROPEAN UNIVERSITY (CHARM-EU)(Barcelona Univ.) (Trinity College Dublin, Utrecht Univ., Montpellier Univ.)	
EFOP: Interdisciplinarity in the Informatics, <i>Eötvös Univ.</i>	2018-2019
TAMOP: Support of research toward European Science, <i>Eötvös Univ.</i>	2009-2012
OTKA (Hungarian Acad. of Sci.):	
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- Classical and quantum behavior of the chaotic systems,	1992-1994
- Theory of random processes and complex structures,	1990-1993
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Publication

Published article: 52

Citation metric in indexed database (min value of Hung. Acad. of Sci.):

Database of Hung. Acad. of Sci. (MTMT):	1186 (min 100)	h-index: 10 (min 7)
Publons:	703	h-index:9
Sopus:	704	h-index:8
Google Scholar:	1423	h-index: 12
Numb. of articles in Web of Science:	29	
Citation in WoS:	703 (min 50)	
Numb. of IF article:	19 (min 4)	
Sum of Correlated IF:	10.09	
Sum of Relative Correlated IF:	8.55 (min 2)	
Number of Q type:	Q1: 15, Q2:4, Q3:1, Q4:1	

Indexed Database: Web of Science, Scopus, Publons, Orchid, Science Direct, Inspire hep, NASA ads

The full list of publication is enclosed.

ORCID: 0000-0003-4739-9103
Scopus ID: 7003969420
Publons: 1757808
ResearchGate: www.researchgate.net/profile/Agnes_Fulop

Reviewer:

-CHEP conference 2019
-Journal Chaos 2020

Conference, workshop

2021 8. International Conference on Mathematics and Informatics, Univ. Sapientiae, Marosvásárhely Romania
2019 X. World Science Forum, Hungarian Academy of Science, Hungary
2019 XXXIX. Dynamics Days Conference, University Rostock, Germany
2018 XXXVIII. Dynamics Days Conference, University of Loughborough, England
2018 Number, Function and Equations, Hajduszoboszló, Hungary
2017 Chaos'17, Barcelona, Spain
2015 6. International Conference on Mathematics and Informatics, Univ. Sapientiae, Marosvásárhely Romania
2014 XXXIV. Dynamics Days Conference, University of Brayreuth, Germany
2013 Number, Function and Equations, Visegrád, Hungary
2012 XXXI. Dynamics Days Conference, Washington, Baltimore, USA
2010 XXX. Dynamics Days Conference, University of Bristol, England
2009 International Conference of Computing in High Energy and Nuclear Physics, Prága, Czech Country
2008 Complex Systems Conference, Párizs, France
2001 Statisztikus Fizika Nap MTA Statisztikus Fizika Szakcsoportja, ELFT, Budapest, Hungary
2001 Collegium Hungaricum Budapest, Hungary
1995 Giessen University, Germany
1994 Patras University, Greece
1994 Thermodynamical Lectures, ELFT, Hungary
1993 Chaos and Order and Patterns Aspect of Nonlinearity NATO Conference, Italy
1993 V. Reconstrues de Blois "Chaos and Complexity", France
1993 XIV. Dynamics Days, Poland
1993 Fractals in Natural Sciences "The Complex Geometry in Nature", Hungary
1991 Chaotic Dynamics: Theory and Particle NATO Conference, Greece
1990 XI. Dynamics Days Düsseldorf, Germany
1990 Ernst-Moritz-Amdt Universität, Germany
1990 Laboratoire de Physique Ecole Normale Supérieure, Les Houches, France
1989 X. Dynamics Days Düsseldorf, Germany
1988 IX. Dynamics Days Düsseldorf, Germany

Organisation of Conference

-2013: **Number, Fuction and Equations NFE'13**
Location: Visegrád, 2013 June 28-30 (member of organization committee)
(It was dedicated to the Professors Imre Kátai and Zoltán Daróczy on the occasion of their 75th birthday.)

-2012: **NA61/NA49 collaboration workshop**
Location: Eötvös Univ., Date 2012 May 14-19 (chair)
co-chair Wigner Institut and Eötvös Univ. Fac. Inf. and Dept. of Atomic Physics
participant: 12 countries, 50 researcher from 27 Universities, Institutions

A research team for graduate and doctoral students

We organized a group together with prof. György Vesztergombi to study the experimental particle physics by computer science for graduate students.

Foreign fellowship for students

2019- :	Forster Richárd	Fellow, CERN, Switzerland
2015-2018:	Forster Richárd	Ph.D Student, CERN, Switzerland;
2014-2015:	Forster Richárd	Technical Student/Scientific associate CERN, Switzerland
2011-2012:	Sipos Roland	Technical Student, CERN, Switzerland
2011	Bozsogi Balázs	Fellowships, Creative Electronic Systems, Switzerland
2010:	Forster Richárd	Summer Student, CERN, Switzerland
2010:	Sipos Roland	Summer Student, CERN, Switzerland
2009-2010:	Bozsogi Balázs	Technical Students, CERN, Switzerland
2009:	Bozsogi Balázs	Student program, CBM, Germany

Conference participation

2018:	R. Forster	GPU Days, Wigner Institut Hungary
2017:	R. Forster	GPU Technology Conference, San Jose California Szilikonvölgy, USA
2017:	R. Forster	GPU Days, Wigner Institut Hungary
2016:	R. Forster*, O. Visnyei	GPU Technology Conference, San Jose California Szilikonvölgy, USA
2016:	R. Forster	Joint Conf. on Math. and Comp. Sci., Eötvös Univ., Eger Hungary
2016:	R. Forster	GPU Technology Conference, Amsterdam Neatherlands,
2016:	R. Forster	INES 2016 20. Jubilee IEEE Int. Conf., Budapest, Hungary
2015:	P. Fehér*, A. Fülöp, I. Csabai, G. Vesztergombi,	Int. Conf. on Mathematics and Informatics, Sapientia Univ, Marosvásárhely, Romania
2015:	R. Forster*, A. Fülöp,	GPU Technology Conference, San Jose California Szilikonvölgy, USA
2013:	A. Agócs, A. Fülöp, R. Forster, Gy. Vesztergombi*,	Wigner-111 Symposium, Budapest, MTA, Hungary
2013:	R. Forster*, A. Fülöp,	GPU Technology Conference, San Jose California Szilikonvölgy, USA
2012:	R. Sipos*, A. László, J. Marcinek, T. Paul, M. Szuba,	M. Unger, D. Veberic, O. Wyszynski for the NA61 Collaboration,
2012:	R. Sipos*, A. László,	Joint Conf. on Math. and Comp. Sci., Eötvös Univ., Siófok Hungary
2012:	A. Agócs, A. Fülöp, R. Forster, G. Vesztergombi*,	NA61/NA49 Collaboration Meeting, Eötvös Univ. Budapest, Hungary
2012:	A. Agócs, A. Fülöp, R. Forster, G. Vesztergombi*,	IZEST(International Zettawatt-Exawatt Science and Technology)
2012	A. J. Marcinek, T. Paul, Dr. M. Szuba, M. Unger, D. Veberic,	University of Strathclyde Scotland
	O. Wyszynski, R. Sipos*, A. László,	International Conference of Computing in High Energy and Nuclear Physics, New York, USA

- 2012 O. Wyszynski, A. László, A. Jerzy Marcinek, T. Paul, R. Sipos*,
M. Szuba, M. Unger, D. Veberic,
International Conference of Computing in High Energy and Nuclear Physics, New York, USA
- 2011: G. Benelli, B. Bozsogi*, A. Pfeier, D. Piparo and V. Zemleris,
IEEE-2011: Nuclear Science Symposium and Medical Imaging Conference,, Valencia Spain
- 2011 R. Sipos*, O. Wyszynski,
Na49/61 Collaboration Meeting Ruder Boskovic Institute, Zürich, Switzerland
- 2010: Á. Agócs*, Á. Fülöp,
Joint Conf. on Mathematics and Computer Science Selye János Egyetem, Komárno, Slovakia
- 2009: Á. Fülöp, Z. Gilián, Gy. Vesztegombi*
European Strategy for Future Neutrino Physics Workshop, Zürich, Switzerland
- 2009: Á. Fülöp, Z. Gilián, Gy. Vesztegombi*
Zimányi 2009 Winter School on Heavy Ion Physics
Wigner Intézet, Budapest Hungary

Publication

29 articles have been published together with students.

These are available in indexed database of Hung. Acad. of Sci. (MTMT).

Program of Doctoral school

Ph.D students

-2015-2018: R. Forster (Ph.D School of Eötvös Univ., CERN scholarship)

-Absolutorium 2018

-Doctoral topic: Parallel computing application in the experimental and theoretical physics

Publication: 16 articles (4 WoS), 1 book

Conference: 5 lectures, 8 posters (USA, Switzerland, Neatherlands)

Important results, articles:

-Yang-Mills lattice on CUDA,

-Chaotic behavior of the lattice Yang-Mills on CUDA,

-Jet browser model accelerated by GPU,

-Parallel k_T jet clustering algorithm

Lectures in Doctoral Schoole

-Nonlinear phenomenon on lattice

-Simulation methods

Additional activity:

-Final exam

-Academic Student League

-Forster Richárd, Sipos Roland, Parallel processing of large databases,

I. prize on the Eötvös Univ. (2010), Extra prize on the National Competition (2011)

-Agócs Ádám, Bozsogi Balázs, High efficiency trigger algorithms,

II. prize on the Eötvös Univ. (2008), III. prize on the National Competition, (2009)

Lecture for graduate students

1. Algebraic encoding theory, Cryptography
2. Efficiency of the Algorithms,
3. Finite Fields,
4. Parallel computing,
5. Simulation methods,
6. Chaotic dynamical system
7. Fractal geometry
8. Discrete mathematics
9. Statistical physics seminar

Special lecture:

Modeling a multi-body problem on a grid

Course-book: Discrete mathematics (2004) (Antal Járai)

Diplom of graduate students

2015	Forster Richárd	<i>Scheduling parallel algorithms CUDA is capable of GPUs</i>
2012	Monostori Gábor	<i>Fast method for feed-down corrections to determine particle physics experiments,</i>
2012	Sipos Roland	<i>Shine - The new software framework for the NA61 Experiment (CERN)</i>
2010	Agócs Ádám	<i>Studies for Parallel Linear Equations Solver, (ERASMUS Cranfield Univ., Appl. Math. and Coump. Group)</i>
2008	Kudela Gábor	<i>Development of aerosol deposition lung model (Wigner Intézet)</i>
2017	Fehér Péter	<i>DNA Sequence Matching with Custom Designed FPGA Hardware</i>
2011	Forster Richárd	<i>Accelerate high computational algorithms with GPU</i>
2010	Sipos Roland	<i>Track reconstruction at calorimetric measurements</i>
2009	Bozsogi Balázs	<i>Creating a firmware program for Trigger Particle Fusion</i>

Faculty committee

- Faculty Council Member
- Credit transfer committee