

Curriculum Vitae

Personal details

Name Takács, Gábor
Position Full professor
Head of BME "Momentum" Statistical Field Theory Research Group
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Employment

1992-1993 Institute for Theoretical Physics, Eötvös University
Research assistant with scholarship of the Scientific
Qualification Committee
(TMB), Hungarian Academy of Sciences
1993-1996 HAS-Eötvös Theoretical Physics research group, Eötvös
University
assistant research fellow
1996-1997 HAS-Eötvös Theoretical Physics research group, Eötvös
University, Budapest
research fellow
1997-1999 Theory Group of INFN Sezione di Bologna
postdoctoral fellow
1999-2001 Department of Mathematics, King's College London
postdoctoral fellow
2001-2002 Institute for Theoretical Physics, Eötvös University
Magyary Zoltán postdoctoral fellow
2002-2005 Institute for Theoretical Physics, Eötvös University
OTKA postdoctoral fellow
2005-2010 HAS-Eötvös Theoretical Physics research group, Eötvös
University
senior research fellow
2010-2012 HAS-Eötvös Theoretical Physics research group, Eötvös
University
scientific advisor
2012-2014 Institute of Physics, Budapest University of Technology and
Economics
scientific advisor
2012-2017 MTA-BME "Momentum" Statistical Field Theory Research
Group
scientific advisor, head of group

- 2014- Department of Theoretical Physics, Budapest University of
Technology and Economics
full professor
- 2017- BME "Momentum" Statistical Field Theory Research Group
head of group

Education

- 1983-1987 Katona József Gimnázium, Kecskemét (secondary grammar
school)
National Secondary School Competition (OKTV)
mathematics: 9th (1986), 3rd (1987)
chemistry: 10th (1987)
International Chemistry Olympiade, 1987: silver medal
- 1987-1992 Eötvös University, Budapest,
Faculty of Sciences, M.Sc. course in physics
- 1991-1992 Republican Scholarship of Hungarian Republic
- 1992 Diploma (M.Sc.) in physics with distinction
Diploma work topic: Conformal Field Theory
Supervisor: Prof. Zsolt Horváth, Institute for Theoretical
Physics
Thesis: "Investigation of classical A_2 Toda field theory"
- 1992-1993 Scholarship of the Scientific Qualification Committee (TMB),
Hungarian Academy of Sciences
- 1993-1995 Ph.D. student and research assistant, Eötvös University,
Institute for Theoretical Physics
Research topic: Two Dimensional Integrable Field Theories
Supervisor: Prof. Zsolt Horváth
- 1994-1996 Member of Bolyai College, Eötvös University
- 1995-1996 Visiting research student at
Dept. of Applied Mathematics and Theoretical Physics
(DAMTP)
University of Cambridge, Cambridge, UK
Member of Darwin College
Supervisor: Dr. G. M. T. Watts (until March, 1996),
Dr. J. M. Evans (from March, 1996)
Research topic: Integrable and Conformal Field Theories
- 1996 Certificate of Proficiency in English, grade "A"

Academic degrees

- 1996 Ph.D. from Eötvös University with the result "Summa cum
laude"
Thesis: "Free field representation for the form factors of the
 $O(3)$ nonlinear sigma model and its generalizations"

- 2005 Habilitation (dr. habil) from Eötvös University
- 2008 Doctor of the Hungarian Academy of Sciences (DSc)
DSc thesis: "Finite size effects in quantum field theory"

Scholarships, fellowships and prizes

- 1995-1996 Scholarship of the Cambridge Overseas Trust
- 1997-1999 INFN postdoctoral fellowship
Theory Group of INFN Sezione di Bologna
- 1999-2001 PPARC postdoctoral fellowship
Department of Mathematics, King's College London
- 2001-2002 Magyary Zoltán postdoctoral fellowship, Foundation for
Hungarian Higher Education and Research,
Hungarian Ministry of Education Eötvös University, Institute for
Theoretical Physics
- 2002-2005 Széchenyi István scholarship, Hungarian Ministry of Education
- 2002-2005 OTKA postdoctoral fellowship
Eötvös University, Institute for Theoretical Physics
- 2003 Academy Prize for young researchers, Hungarian Academy of
Sciences
- 2005-2008 Bolyai János research scholarship, Hungarian Academy of
Sciences
- 2008 Novobátzky prize, Eötvös Loránd Physical Society
- 2017 BME's most significant scientific publication 2016
M. Kormos, M. Collura, G. Takács and P. Calabrese,
Nature Physics **13**: pp. 246-249 (2017, online advanced publication: 2016)
- 2018 BME's most outstanding scientific publication 2013-2017
B. Pozsgay, M. Mestyán, M.A. Werner, M. Kormos, G. Zaránd and G. Takács,
Physical Review Letters **113**:(11) Paper 117203 (2014)
- 2020 Academy Prize, Hungarian Academy of Sciences

Membership and roles in professional organizations

- 2000- Eötvös Loránd Physics Society
- 2001-2004 President of the Particle Physics Section of the Eötvös Loránd
Physics Society
- 2004-2007 Secretary of the Particle Physics Section of the Eötvös Loránd
Physics Society
- 2006-2010 Physics panel of the Hungarian Scientific Research Fund
- 2008-2009 Council of Research Units of the Hungarian Academy of
Sciences
- 2008-2010 Council of the Research Network of the Hungarian Academy
of Sciences
- 2008-2011 Secretary of the Committee on Particle Physics, Section of
Physical Sciences, Hungarian Academy of Sciences

- 2008- Young Researchers' Council of the Hungarian Academy of Sciences
Coordinator of the physical sciences section (2008-2010)
- 2011-2014 Chairman of the Committee on Particle Physics, Section of Physical Sciences, Hungarian Academy of Sciences
- 2014-2017 Deputy chairman of the Committee on Particle Physics, Section of Physical Sciences, Hungarian Academy of Sciences
- 2014- Supervisory Committee of Bolyai College Foundation
- 2017- Committee on Statistical Physics, Section of Physical Sciences, Hungarian Academy of Sciences
- 2018- Editorial Board of Fizikai Szemle
(monthly journal of Eötvös Loránd Physics Society)

University organisation: roles and responsibilities

- 2014-2017 ELTE Physics Habilitation Committee
- 2014- BME Physics Doctoral School Council
- 2014- BME Physics Habilitation and Doctoral Council
- 2014- BME Faculty of Science Council
- 2015- Secretary of BME Physics Education Committee
- 2015- Deputy director (education), BME Institute of Physics
- 2017- ELTE Science Faculty Habilitation Council

Other professional activities

- 2003-2009 Tutor of the physics section of Bolyai College

Grants (as principal investigator)

- 2001-2003 FKFP 0043/2001 research grant
Integrable and conformal field theories, dynamical symmetries and their applications
- 2002-2005 OTKA D42209 postdoctoral grant
Nonperturbative investigation of two-dimensional quantum field theories
- 2008 NKTH Apponyi Albert (Mecenatúra) grant BOMMRG08
Organization of "Renormalization Group" Bolyai intensive course
- 2008-2012 OTKA K75172 research grant
Correlation functions and finite size effects in two-dimensional quantum field theories
- 2012-2017 LP2012-50/2012 "Momentum" grant of the Hungarian Academy of Sciences
Statistical Field Theory in Condensed Matter
(MTA-BME "Momentum" Statistical Field Theory Research Group)

- 2013-2015 FP7-PEOPLE-2012-IIF (Marie Curie) grant
 Project number 330076 "*Quantum Quench*"
 Role: scientist-in-charge, fellow: Márton Kormos
- 2013-2015 MTA-CNR Mobility Grant SNK-84/2013
- 2014-2016 MTA Postdoctoral Grant
 Role: supervisor, fellow: Tamás Pálmai
- 2016-2020 NKFIH K2016 grant no. 119204
Dynamics of Strongly Correlated Quantum Systems

Organization of schools and conferences

International conferences and schools

- 2003 EUCLID 2003 Summer School on
Nonperturbative methods in low dimensional integrable models
 Organizer
- 2004 6th Bologna Workshop on *CFT and Integrable Models*
 Member of Scientific Board
- 2006 7th Bologna Workshop on *CFT and Integrable Models*
 Member of Scientific Board
- 2008 Bolyai Intensive Course on *Renormalization Group Methods in Physics*
 Principal organizer
- 2010 Workshop on *Time-dependent dynamics and non-equilibrium quantum systems*
 Organizer
- 2011 35th Johns Hopkins Workshop on *AdS/CFT and its Applications*
 Organizer
- 2012 Zolán Horváth Memorial Workshop
 Organizer
- 2014 Workshop on *Finite-size Technology in Low Dimensional Quantum Systems (VII)* + Conference on *Integrability in Low Dimensional Quantum Systems*
 Organizer

Organizer of Hungarian Summer Schools on Theoretical Physics

- 1997 Nonperturbative results in supersymmetric gauge theories
- 2002 New developments in gauge theories, gravitation and strings
- 2004 Cosmology
- 2005 QCD 2005
- 2006 Experiments and Einstein's theory of gravitation
- 2007 Physics at the LHC

Participation at international schools

- 1992 Winter School on Nuclear and Particle Physics, Schladming, Austria
- 1992 Eötvös Graduate School on "Selected Topics on Quark Confinement", Budapest, Hungary
- 1993 International School on Astroparticle Physics, Budapest, Hungary
- 1994 XXXth Karpacz Winter School on "Quantum Groups" Karpacz, Poland
- 1994 Spring School and Workshop on String Theory, Gauge Theory and Quantum Gravity
International Center for Theoretical Physics, Trieste, Italy
- 1995 Spring School and Workshop on String Theory, Gauge Theory and Quantum Gravity
International Center for Theoretical Physics, Trieste, Italy
- 1995 Les Houches Summer School in Theoretical Physics
Session LXIV on "Quantum Symmetries" Les Houches, France
- 1997 Spring School on String Theory, Gauge Theory and Quantum Gravity
International Center for Theoretical Physics, Trieste, Italy
- 1999 Spring Workshop on String Theory and Related Matters
International Center for Theoretical Physics, Trieste, Italy
- 2001 Summer School on Low Dimensional Quantum Systems
International Center for Theoretical Physics, Trieste, Italy