

## CV – Géza Meszéna

### Degrees, positions, publications

#### Education and degrees

*Secondary school:* Berzsényi Dániel Gimnázium (Budapest), special mathematics class, 1970-74

*International Physics Olympiad:* 1974, Warsaw, 1<sup>st</sup> prize

*Master:* Eötvös University, Budapest, Physics-Biophysics, 1980

*Doctor of University:* Eötvös University, Biology-Biophysics, 1986

*Candidate (PhD):* Academy of Sciences, Physics, 1994

*Habilitation:* Eötvös University, Physics, 2006

*Doctor of Academy:* Academy of Sciences, Biology-Ecology, 2007

#### Positions

Atomic Energy Research Institute, doctoral fellowship, 1980

Eötvös University, Department of Atomic Physics, doctoral fellowship, 1980-1984

demonstrator, 1984-87

assistant professor, 1987-98

Eötvös University, Department of Biological Physics, associated professor 1998-2016

Collegium Budapest, associate fellow, 2000-2001

Széchenyi Professor, 1999-2002

Széchenyi Professor, 2003-2006

Eötvös University, Department of Biological Physics, full professor 2016-

MTA-ELTE Theoretical Biology and Evolutionary Ecology Research Group, group leader 2017-2022

#### Book

Theory-based Ecology: A Darwinian approach by Liz Pásztor, Zoltán Botta-Dukát, Gabriella Magyar, Tamás Czárán, & Géza Meszéna. Oxford University Press, 2016

#### Other publications

- Refereed papers in English: 48
- Book chapters in English: 7
- Book chapters in Hungarian: 3
- Independent citations (MTMT): 2725
- Google Scholar citations: 4963
- Hirsch index (MTMT/Google) 22/29

MTMT listing of publications:

[https://vm.mtmt.hu/search/slist.php?nwi=1&inited=1&ty\\_on=1&url\\_on=1&cite\\_type=2&orderby=3D1a&locati on=mtmt&stn=1&AuthorID=10000084&Scientific=1](https://vm.mtmt.hu/search/slist.php?nwi=1&inited=1&ty_on=1&url_on=1&cite_type=2&orderby=3D1a&locati on=mtmt&stn=1&AuthorID=10000084&Scientific=1)

Google Scholar: <https://scholar.google.com/citations?user=EcZFecAAAAAJ&hl=hu&oi=ao>

## Scientific cooperation, grants, conferences

### Longer stays abroad

1982: Biophysics School, International Centre for Theoretical Physics, Trieste, Italy, 1 month

1987: Univ. of Illinois at Urbana/Champaign, USA, photosynthesis, 5 months, Soros scholarship

1992: Univ. of Amsterdam, the Netherlands, bioenergetics, 3 months, Peregrinatio II. Foundation

1994: University of Leiden, the Netherlands, evolutionary biology, 3 months, European Union

1995: University of Leiden, the Netherlands, 2 months, NWO

1997: University of Utrecht, the Netherlands, 2 months, NWO

1998: University of Aarhus, Denmark, 2 months, ESF

1999: Ecole Normale Supérieure, France, 2 months, ESF

### International grants

#### *Hungarian coordinator:*

Dutch-Hungarian (NWO & OTKA) grant, Adaptive dynamics:

- 1994-1996: 107 kNfl
- 1997-1999: 50 kNfl
- 2001-2003: 70 kNfl

Dutch coordinators: Prof. dr. Odo Diekmann, University of Utrecht & Prof. dr. Hans Metz, University of Leiden.

#### *Steering Committee member:*

European Research Networking Programme of the European Science Foundation „Frontiers of Speciation Research (FroSpects)”, 2008-2012, 500 k Euro. Organisers: Åke Bränström, Ulf Diekmann és Jacques van Alphen. Home page: <http://www.iiasa.ac.at/Research/EEP/FroSpects>

### Hungarian grants:

Ecological foundations of adaptive dynamics, FKFP, 1999-2000, 1 700 kFt

Population genetics of adaptive speciation, OTKA, 1999-2001, 1 900 kFt

Adaptive ecology in varying environment, OTKA, 2005-2008, 7 997 kFt

Mechanism generating and maintaining biological diversity, OTKA, 2010-2015, 12 000 kFt

Mathematical theory of biological diversity, NKFI K\_17, 2017-2021, 17 808 kFt

### Conferences organised

I organised 8 international conferences in the frameworks of the 2 international collaborations above. See my home page for further information.

#### *Dutch-Hungarian cooperation:*

- Adaptive Dynamics Workshop, Veszprém, 1995 (project opening)
- Adaptive Dynamics: beyond ESS, Budapest & Mátraháza, 1996
- Adaptive Dynamics Workshop, Budapest-Csillebérc, 1998
- Adaptive Dynamics Workshop, Budapest-Csillebérc, 2000
- Adaptive Dynamics Workshop, Veszprém, 2002
- Adaptive Dynamics Workshop, Collegium Budapest, Budapest, 2004 (project closing)

### *FroSpects:*

- Speciation Symposium, Debrecen, 2009  
Regional symposium with researchers from Poland and Czech Republic.
- Niche theory and speciation, Keszthely (Lake Balaton), 2011  
Workshop with 50 attendants from Europe and North America. Home page:  
<http://nichews.elte.hu>  
Evolutionary Ecology Research published a special issue after the workshop, edited by Géza Meszéna & Andrew Hendry.

### *International Initiative for Theoretical Ecology*

Incorporated in England & Welsh, as charity. I am a Trustee and organizer of an international webinar series on Theoretical Ecology.

### **Committees and refereeing**

*Council of Professors of Institute of Physics:* president, 2019-23

*Exam committee for Physics BSc final exam:* president

*OTDK jury:* president

*OTKA grant committee:* Bioinformatics-Biophysics (closed)

*ELTE PhD committees* (regular)

*Program Committee:* ELTE Biology PhD School, Theoretical and Evolutionary Biology program

*Grant application refereeing:* European Research Council (closed), OTKA (regular)

*Steering Committee:* ESF Research Networking Programme „Frontiers of Speciation Research” (2008-13)

*Journal refereeing:* Physical Review Letters, Physical Review, Proceedings of the Royal Society B, Ecology Letters, American Naturalist, Evolution, Journal of Evolutionary Biology, Evolutionary Ecology, Evolutionary Ecology Research, Journal of Mathematical Biology, Journal of Theoretical Biology, Theoretical Population Biology, Journal of Biological Dynamics, Theoretical Ecology, PLoS One

## **Teaching**

### **Courses**

- Biological Physics, credit: 4, Biology BSc, 60-120 students
- Physics, credit: 4, Biology BSc, 300 students (with Imre Derényi)
- Theoretical Evolutionary Biology, credit: 3, Physics BSc Biophysics speciality, cc. 10 students
- Biophysics seminar (alternating with Gábor Horváth): physics students, cc. 10 students
- Biophysics course seminar (with Imre Derényi): 5-10 students
- Theoretical ecology, Theory Based Ecology 3-10 students
- Seminar on Theoretical Evolutionary Biology and Ecology, research seminar, also for PhD students

### **Supervising**

#### *Student projects*

- Krisztián Mágori. 2nd prize at ELTE Biology TDK, 1998/9
- Zoltán Zimborás: 3rd prize ELTE Physics TDK, 1998/9
- János Asbóth & András Vukics: 2nd prize, ELTE Physics TDK, National: honorary mention, 1999/2000
- Diána Lantos: ELTE Biology TDK, 2000
- Benjámín Márkus: shared 1st prize ELTE Biology TDK, 2015

#### *BSc*

- Dávid Hummel (2009)

- László Ruff (2013)
- Márk Stromp (2014)
- Domícián Kovács (2015)
- Alekszej Romanenko (2015)
- Dániel Nagy (2016)
- Bianka Kovács (2017)
- Bálint Futó (2017)
- Miklós Gula (2019)

### *MSc*

- István Czibula (1997)
- Krisztián Mágori (1999)
- Diána Lantos (2001)
- Csaba Tóth (2001)
- György Barabás (2008)
- Dávid Völgyes (2008)
- Richard Erdélyi (2013)
- Kristóf Törkenczy (2014)
- Benjámín Márkus (2016)
- Anna Redl

### *PhD*

- Krisztián Mágori, 1999-2002, PhD 2004
- Ferenc Mizera, 1999-2002.
- Péter Szabó, 2001-2004; PhD in 2006
- Jeromos Vukov, 2004-2007; PhD in 2008
- András Szilágyi, 2004-2007; PhD in 2010

### Teaching organisation

With Imre Derényi we developed the Biophysics speciality of the Physics course both at BSc and MSc levels. A Biophysics master course was initiated also.