

# Curriculum vitae

## Personal information

Name: Júlia Réffy  
Date of Birth: January 6, 1978  
Place of Birth: Budapest  
Gender: Female  
Office address: Department of Mathematical Analysis  
Budapest University of Technology and Economics  
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## Education

2007– Assistant professor  
Budapest University of Technology and Economics,  
Department of Mathematical Analysis  
2006 PhD in Mathematics, Budapest University of Technology and  
Economics  
Thesis: Asymptotics of random unitaries  
Supervisor: Prof. Dénes Petz  
2004–2006 Assistant  
Budapest University of Technology and Economics,  
Department of Mathematical Analysis  
2001–2004 PhD student  
Budapest University of Technology and Economics,  
Department of Mathematical Analysis  
Supervisor: Prof. Dénes Petz  
2001 MSc in Mathematics, Eötvös Loránd University, Budapest  
Thesis: Eigenvalues of Random Matrices  
Supervisor: Prof. György Michaletzky

## Research interest

Random matrix theory  
Noncommutative probability  
Large deviation theory

## Conferences

- Quantum Entropies: Dynamics and Information, Trieste, 2001  
School on quantum Markov chains and their applications in physics and quantum information, Trento, 2001
- 23rd Conference on Infinite Dimensional Analysis and Quantum Probability Levico Terme, 2002, title of the talk: *On the trace of the powers of random unitary matrices*
- School on random matrix theory with various applications, Levico Terme, 2002 as scientific secretary
- An International Conference on Quantum Probability and Infinite Dimensional Analysis, Greifswald, 2003, title of the talk: *Large deviation theorem for truncated Haar distributed matrices*
- Second Summer School in Potential Theory, Szeged, 2003, title of the talk: *Logarithmic energy and random matrices* (in Hungarian)
- Von Neumann Centennial Conference: Linear Operators and Foundations of Quantum Mechanics Budapest, Hungary, 15–20 October, 2003 as secretary
- INI satellite workshop „Random Matrices and Probability“, Warwick, 2004, title of talk: *Asymptotics of Haar unitaries and their truncation*
- Third Summer School in Potential Theory, Kecskemét, Hungary, 2004, title of the talk: *Random matrices and Brown measure*
- Probability Theory on Groups and Related Structures, Budapest, Hungary, 2004, title of talk *Asymptotics of random unitary matrices*
- Fourth Summer School in Potential Theory, Debrecen, 2005, title of talk: *Orthogonal polynomials and random matrices*
- Summer school „Freie Wahrscheinlichkeitstheorie“, Goettingen, Germany, 2005.
- XXXVIth International Probability Summer School, Saint-Flour, France, 2006.
- XXIIth International Petrovskii Conference, Moscow State University, Moscow, 2007, title of talk: Application of weighted potential theory for large deviation results for random matrices

- 3rd Cornell Probability Summer School, Cornell University, Ithaca NY, 2007, title of talk: *Large deviations and potential theory*
- Second Workshop on Fourier Analysis Extremal Problems, Budapest, 2007, as organizer
- Seventh Summer School in Potential Theory, Baja, Hungary, 2008, title of talk: *Orthogonal polynomials and eigenvalues of random matrices*

## Papers

- *Eigenvalues of Random Matrices*, Dissertation, 2001
- *On asymptotics of large Haar distributed unitary matrices*, with Dénes Petz, *Periodica Mathematica Hungarica* **49** (2004), no. 1, 103–117
- *Large deviation theorem for empirical eigenvalue distribution of truncated Haar unitary matrices*, with Dénes Petz, *Probability Theory and Related Fields*, **133**. (2005) no. 2. 175–189.
- *Asymptotics of large truncated Haar unitary matrices* *Quantum Probability and Infinite Dimensional Analysis. From Foundations to Applications* vol. XVIII, eds. M. Schürmann and U. Franz, World Scientific, 2005, 448–456.
- *Logarithmic energy and random matrices* (in Hungarian)
- *John von Neumann: the early years, the years at Los Alamos and the road to computing* by Peter D. Lax, translation to Hungarian, Magyar Tudomány, 2003/12
- *Means and inequalities* (in Hungarian) *Polygon XVI*. (2005) no. 1. 61–70.
- *Asymptotics of random unitaries*, Phd thesis, 2005
- *Construction of complex Hadamard matrices via tiling Abelian groups*, with M. Matolcsi and F. Szöllősi, *Open Systems and Information Dynamics*, **14**, (2007) 247–263.
- *Linear algebra and its applications* by Peter D. Lax, translation to Hungarian, Akadémia Kiadó, Budapest 2008, ISBN: 978 963 05 8632 0

### **Teaching experience**

Undergraduate seminars on measure theory, complex analysis and functional analysis for mathematics and physics students, higher mathematics for engineer students, special courses on matrix analysis and random matrix theory

### **Knowledge of Languages**

English: Advanced  
Latin: Advanced  
Italian: Intermediate