# Curriculum Vitae

#### Péter Pál Pach

## April 2021

#### Personal Data

Name: Péter Pál Pach Place of birth: Budapest

Date of birth: 30 December 1985

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### **Studies**

2009–2012: PhD in Theoretical Mathematics, Eötvös Loránd University (ELTE), Buda-

pest

2004–2009: MSc in Mathematics, Eötvös Loránd University (ELTE), Budapest

#### Affiliation

2019— head of the MTA-BME Lendület Arithmetic Combinatorics Research group

2017 — Department of Computer Science and Information Theory, Budapest University of Technology and Economics (BME), associate professor

2017–2018 DIMAP, University of Warwick, research fellow (advisor: Dan Král')

2013–2017 Department of Computer Science and Information Theory, Budapest University of Technology and Economics (BME), assistant professor

2012–2013 Department of Computer Science and Information Theory, Budapest University of Technology and Economics (BME), assistant lecturer

### **Teaching**

2015 – Aquincum Institute of Technology (AIT), in English

 ${\bf 2012}-$  Budapest University of Technology and Economics (BME), in Hungarian and in English

2012 – Budapest Semesters in Mathematics (BSM), in English

2006-2013 Eötvös Loránd University (ELTE), in Hungarian

### **Talks**

- 1. 7th International Conference on Uniform Distribution Theory, Linz (online), 2021 (invited)
- 2. Additive Combinatorics, CIRM, Luminy (hybrid), 2020 (invited)
- 3. Combinatorial and Additive Number Theory, New York (online), 2020
- 4. One day Meeting on Extremal Combinatorics, EWHA University, Seoul, 2020 (invited)
- 5. Zero-Sum Ramsey Theory: Graphs, Sequences and More, Oaxaca, 2019 (invited)

- 6. IBS One-Day Conference on Extremal Graph Theory, Daejeon, 2019 (invited)
- 7. The 11th Hungarian-Japanese Symposium on Discrete Mathematics and Its Applications, Tokyo, 2019 (invited)
- 8. London Colloquia in Combinatorics, 2019 (invited)
- 9. FU Berlin, Colloquium, 2019 (invited)
- 10. One day workshop on Extremal Combinatorics, EWHA University, Seoul, 2019 (invited)
- 11. Additive combinatorics, Linz, 2018 (invited)
- 12. Mathematics Colloquium, TU Graz, 2018 (invited)
- 13. Arithmetic Ramsey Theory in Manchester, 2018 (invited)
- 14. Prague Summer School on Discrete Mathematics 2018 (invited lecture series)
- 15. The Joint International Meeting of the Chinese Mathematical Society and the American Mathematical Society, 2018 (invited)
- 16. Combinatorial and Additive Number Theory, New York, 2018
- 17. 10 Year Anniversary DIMAP Workshop, University of Warwick, 2017
- 18. Workshop on Algebraic Methods in Combinatorics, Harvard, 2017 (invited)
- 19. Vilnius Conference in Combinatorics and Number Theory, Vilnius, 2017
- 20. Journées Arithmétiques, Caen, 2017
- 21. CanaDAM, Toronto, 2017 (invited minisymposium talk)
- 10th Japanese-Hungarian Symposium on Discrete Mathematics and Its Applications, Budapest, 2017
- 23. Polynomial method workshop, Jerusalem, 2016 (invited)
- 24. Polynomial method workshop, Bristol, 2016 (invited)
- 25. Conference on elementary and analytic number theory, Strobl am Wolfgangsee, 2016
- 26. Combinatorial and Additive Number Theory, New York, 2016
- 27. Additive Combinatorics in Bordeaux, 2016
- 28. Combinatorial and Additive Number Theory, Graz, 2016
- 9th Hungarian-Japanese Symposium on Discrete Mathematics and its Applications, Fukuoka, 2015
- 30. Summit:240 Conference, Budapest, 2014
- 31. International colloquium on graph theory and combinatorics, Grenoble, 2014
- 32. Paul Turán Memorial Conference, Budapest, 2011
- 33. Artic Number Theory School, Helsinki, 2011
- 34. International Congress of Mathematicians (Poster section), Hyderabad, India, 2010
- 35. Number Theory and its Applications, Debrecen, 2010
- 36. Summer School on General Algebra and Ordered Sets, Malenovice, 2010
- 37. International Conference on Algebras and Lattices, Prague, 2010
- 38. Combinatorics, Groups, Algorithms, and Complexity, Colombus, Ohio, 2010

## Seminar Talks

- 1. Rényi Institute, Number Theory Seminar, 2021 (online)
- 2. University of Bristol, Combinatorics Seminar, 2021 (online)
- 3. Extremal and Probabilistic Combinatorics Webinar, 2020
- 4. Masaryk University, Brno, Joint DIMEA and FORMELA Seminar, 2019
- 5. University of Warwick, Combinatorics Seminar, 2019
- 6. University of Warwick, DIMAP Seminar, 2019
- 7. University of Birmingham, Combinatorics Seminar, 2019
- 8. FU Berlin, Combinatorics Seminar, 2019
- 9. Rényi Institute, Number Theory Seminar, 2018
- 10. University of Bristol, Heilbronn Number Theory Seminar, 2018
- 11. University of Bristol, Combinatorics Seminar, 2018
- 12. University of Warwick, DIMAP Seminar, 2017
- 13. University of Birmingham, Combinatorics Seminar, 2017
- London School of Economics, Seminar on Combinatorics, Games and Optimisation, 2017
- 15. University of Warwick, Combinatorics Seminar, 2017
- 16. PTE, Mathematics Seminar, 2017
- 17. ELTE, Analysis Seminar, 2016
- 18. ELTE, Finite Geometry Seminar, 2016
- 19. Rényi Institute, Combinatorics Seminar, 2016
- 20. Rényi Institute, Number Theory Seminar, 2016
- 21. BME, SZIT Seminar, 2012
- 22. ELTE, Algebra Seminar, 2011
- 23. ELTE, Algebra Seminar, 2009

### Prizes, scholarships

- 1. Bolyai plaquette (2020)
- 2. Excellent Teacher of the Faculty, silver degree (2016)
- 3. János Bolyai Research Scholarship (2015-2018)
- 4. Géza Grünwald Commemorative Prize (2015)
- 5. Erdős Pál Young Researcher Scholarship (2014)
- 6. Honourable Mention of the Dean (2013)
- 7. Sport and Education Scholarship (2011)

- 8. International Mathematics Competition for University Students, First prize, member of the winning team of ELTE (Blagoevgrad, 2008)
- 9. Excellent Student of the Faculty Award (2008)
- Vojtěch Jarník International Mathematical Competition, 8th place (Ostrava, 2008)
- 11. Miklós Schweitzer Memorial Competition, honourable mention (2007)
- 12. International Mathematics Competition for University Students, First prize, member of the winning team of ELTE (Blagoevgrad, 2007)
- 13. Fellowship granted by the Republic of Hungary (2007-2008)
- 14. Miklós Schweitzer Memorial Competition, Third Prize (2006)
- 15. International Mathematics Competition for University Students, First prize (Odessa, 2006)
- 16. Vojtěch Jarník International Mathematical Competition, 4th place (Ostrava, 2006)
- 17. Operation Research Competition, First Prize (2005)
- 18. Miklós Schweitzer Memorial Competition, honourable mention (2005)
- 19. International Mathematics Competition for University Students, First prize (Blago-evgrad, 2005)
- 20. Fazekas Medal of Honour (2004)
- 21. Scholarship of the Prime Minister of Hungary (2005)
- 22. Scholarship of the Prime Minister of Hungary (2004)
- 23. International Mathematical Olympiad, First Prize (Athens, 2004)
- 24. International Mathematical Olympiad, Second Prize (Tokyo, 2003)

### Research projects

- 1. Lendület (Momentum) Grant (2019-2024), MTA-BME Arithmetic Combinatorics Research Group, principal investigator
- 2. Hungarian Scientific Research Fund (NKFIH) K129335 Additive problems (2019-2022), investigator
- 3. Hungarian Scientific Research Fund (NKFIH) K124171 Optimal Mapping of Communication Services onto Cloud Computing Architectures Based on Discrete Mathematical Methods (2017-2021), investigator
- 4. Hungarian Scientific Research Fund (OTKA) PD115978 Applications of Combinatorics in Multiplicative Number Theory (2015-2019), principal investigator
- 5. Hungarian Scientific Research Fund (OTKA) K108947 Optimization Methods for Cloud Computing and Communications (2013-2018), investigator
- 6. Hungarian Scientific Research Fund (OTKA) NK67867 Discrete and Continuous: interfaces between graph theory, algebra, analysis and geometry (2010), investigator

## Role in Scientific Community

- 1. 2020- editor of Studia Scientiarum Mathematicarum Hungarica
- 2. 2005– member of the Editorial Board of Kömal
- 3. 2009– member of the Kürschák Competition Committee, from 2019 the chair of the committee
- 4. 2014– member of the Hungarian National Mathematical Olympiad (OKTV) Committee
- 5. refereeing for Acta Mathematica Hungarica, Bulletin of the London Mathematical Society, Combinatorica, Demonstratio Mathematica, Discrete Applied Mathematics, Discrete Mathematics, European Journal of Combinatorics, Forum of Mathematics Sigma, Israel Journal of Mathematics, Journal of Number Theory, Journal of Combinatorial Theory Series A, Mathematische Nachrichten, Proceedings of the American Mathematical Society, Proceedings of the London Mathematical Society reviewing for MathSciNet and Zentralblatt