CURRICULUM VITAE

PERSONAL DATA

Name: Ondřej Turek

Date of birth:

Nationality: Czech

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Telephone:

AFFILIATION

Department of Mathematics
Faculty of Science
University of Ostrava
30. dubna 22
701 03 Ostrava
Czech Republic

EDUCATION

2006 – 2009   Ph.D. in Applied Mathematics

Faculty of Nuclear Sciences and Physical Engineering,
Czech Technical University in Prague

and

Faculty of Sciences, University of Toulon, France

(double Ph.D. degree obtained within the programme *"Doctorat en co-tutelle"* supported by a scholarship of the French Government)

Thesis: Schrödinger Operators on Metric Graphs

Supervisors: prof. RNDr. Pavel Exner, DrSc. and Prof. Pierre Duclos

Thesis defence: December 2009, with honors *(très honorable)*

2001 – 2006   M.Sc. in Applied Mathematics

Faculty of Nuclear Sciences and Physical Engineering,
Czech Technical University in Prague

Thesis: Quantum graphs with strongly singular coupling at the vertices

Supervisor: prof. RNDr. Pavel Exner, DrSc.

Graduation: June 2006, with honors

PROFESSIONAL EXPERIENCE

2017 – present	Faculty of Science, University of Ostrava, Czech Republic *assistant professor*
2013 – 2019	Nuclear Physics Institute, Academy of Sciences of the Czech Republic *researcher*
2013 – 2017	Bogolyubov Laboratory of Theoretical Physics, JINR Dubna, Russia *senior researcher*
2010 – 2013	Laboratory of Physics, Kochi University of Technology, Japan *postdoctoral researcher*
2005 – 2010	Nuclear Physics Institute, Academy of Sciences of the Czech Republic *researcher*

TEACHING EXPERIENCE

Faculty of Science, University of Ostrava

2019 – present	Linear algebra (lectures and tutorials)
2019 – present	Linear algebra (lectures in English)
2018 – present	Algebra and analytic geometry (lectures)
2018 – 2019	Basics of algebra (lectures and tutorials)
2017 – present	Theoretical arithmetics (lectures and tutorials)

Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University in Prague

2009	Linear algebra and geometry (tutorials)
2006 – 2009	Calculus (lectures and tutorials)
2004 – 2006	Calculus (tutorials)
2004	Linear algebra and geometry (tutorials)

- supervisor of a bachelor thesis *Circulant matrices* (author: Pavla Falharová, academic year 2019/2020 – ongoing, University of Ostrava)

- advisor of a research project *Abelian complexity of infinite words and Abelian return words* (author: Karel Břinda, academic year 2011/2012, CTU in Prague)

AWARDS

- N. N. Bogolyubov Scholarship, Joint Institute for Nuclear Research, Dubna (2016)
- Scholarship of the French Government for the Ph.D. study in France (2006)
- Preciosa Foundation scholarship for excellent students (2005)
- Honourable mention, Czech & Slovak Student Research Contest in Mathematics (2005)

Language skills

- Czech: native speaker
- English: proficient
- Russian: advanced
- French: intermediate
- German: pre-intermediate
- Japanese: elementary

Research interests

- *Quantum mechanics on graphs*
  local properties, scattering, spectral problems

- *Linear algebra and Matrix theory*
  special and structured matrices, applications in mathematical physics

- *Number theory*
  Diophantine approximations, nonstandard numeration systems

- *Combinatorics on words*
  balance properties, complexity and abelian complexity of aperiodic sequences

Professional service

- serving as a referee for impacted journals in mathematics (*Linear Algebra Appl.*, *T. Am. Math. Soc.*), mathematical physics (*J. Phys. A: Math. Theor.*, *Phys. Lett. A*, *Rep. Math. Phys.*) and theoretical computer science (*Theor. Comput. Sci.*)
- about 40–50 reviews written for *Mathematical Reviews*

Publications

- 34 papers in refereed journals indexed in Web of Science or/and Scopus
- 2 papers in refereed proceedings

Citations (as of February 5, 2020)

- total number of citations without self-citations: 161 (Web of Science), 103 (Scopus)
- h-index: 9 (Web of Science), 8 (Scopus)

Selected oral presentations

- "One–sided Diophantine approximations"
  24th Central European Number Theory Conference
  (Komárno, September 1 – 6, 2019)

- "A generalization of circulant Hadamard and conference matrices"
  20th Conference of the International Linear Algebra Society
  (Leuven, July 11 – 15, 2016)

- "Abelian properties of words associated with Parry numbers"
  Journées Montoises
  (Nancy, September 18 – 21, 2014)

- "Quantum graph as quantum spectral analyzer"
  Annual meeting of the Physical Society of Japan
  (Yokohama, September 18 – 21, 2012)

- "Potential–controlled filtering in quantum star graphs"
  Young Researcher Symposium
  (Aalborg, August 3 – 4, 2012)

- "Quantum graph vertices with equal transmission probabilities"
  3rd St. Petersburg Conference in Spectral Theory
  (St. Petersburg, July 1 – 6, 2011)

- "Hermitian unitary matrices with weakened permutation symmetry"
  3rd International Conference on Matrix Methods in Mathematics and Applications
  (Moscow, June 22 – 25, 2011)

- "Vertex couplings in quantum graphs"
  Duality and Scale in Quantum Science
  (Kyoto, November 4 – 6, 2010)

- "Vertex couplings in quantum graphs"
  XVI International Congress on Mathematical Physics
  (Prague, August 3 – 8, 2009)

- "Balance properties of infinite words associated with quadratic Pisot numbers"
  Journées Numération
  (Prague, May 26 – 30, 2008)

- "Approximations of strongly singular couplings at quantum graph vertices"
  Graph Models of Mesoscopic Systems, Wave-Guides and Nano-Structures
  (Cambridge, April 10 – 13, 2007)

- "Arithmetical and combinatorial properties of β-integers for non-simple quadratic Parry number β"
  CANT – Combinatorics, Automata and Number Theory (Liège, May 8 – 12, 2006)

- "Complexity and balances of the infinite word of β-integers for $\beta = 1 + \sqrt{3}$"
  4th International Conference on Words
  (Turku, September 10 – 13, 2003)