

Curriculum Vitae

of Péter Bálint

Born:

Budapest, 30 July 1974

Pre-university studies:

Primary School: Budapest, 1980-1988

High School: Budapest, 1988-1992

University studies:

Eötvös University, Budapest, Faculty of Sciences, 1992–1997

Mobility stay at Bern University, studies in Canonical Quantization Techniques with the guidance of Professor Petr Hájíček (March–July 1996)

Graduated in Physics at Eötvös University, June 1997

Thesis: Investigation of Canonical Quantization Techniques in Simple Systems

Advisor: László B. Szabados

PhD Studies:

Eötvös University, PhD program: Mathematics, 1997 – 2000

Advisor: Domokos Szász

Thesis: Some Geometric Aspects of Multi-dimensional Hyperbolic Billiards

Defence: October 2002

Knowledge of Languages:

Hungarian – native (még jó!)

English – fluent

German – good (es geht)

French – intermediate (ça va)

Russian – basic (немного)

Professional Positions:

- 2000–2003 Alfréd Rényi Institute of Mathematics, Budapest, Hungary; “young researcher” fellow of the Hungarian Academy of Sciences
- May 2003 – April 2004 Centre de Physique Théorique, Marseille, France; post-doctoral fellow of the Centre National de la Recherche Scientifique

- May – August 2004 Centre de Physique Théorique, Marseille, France; associated researcher of the Centre National de la Recherche Scientifique
- 1998–2002 Institute of Mathematics, Technical University of Budapest, Budapest, Hungary; teaching assistant
- 2003 Institute of Mathematics, Technical University of Budapest, Budapest, Hungary; part–time teaching assistant (on leave from position)
- 2004 Institute of Mathematics, Technical University of Budapest, Budapest, Hungary; part–time assistant professor (on leave from position)

Awards:

- Grant for PhD Students of the Soros Foundation, Hungary; September 2000 – September 2001
- 'Young Researcher' grant of the Hungarian Academy of Sciences, Alfréd Rényi Institute of Mathematics, Budapest, Hungary, September 2000 – April 2003
- Géza Grünwald prize of the János Bolyai Mathematical Society (Hungarian Mathematical Society), 2001
- Post-doctoral grant of the Centre National de la Recherche Scientifique, Centre de Physique Théorique, Marseille, France, May 2003 – April 2004

Main fields of interest:

Dynamical systems (maps and flows), especially billiards
 Ergodic and hyperbolic behaviour in billiards
 Statistical properties in hyperbolic systems with singularities

Participation, talks and posters at international conferences:

- 27 July – 7 August 1998; NATO ASI on Models and Kinetic Methods for Non-equilibrium Many-Body Systems; Leiden, Netherlands;
Poster: Chaotic and ergodic properties of cylindric billiards
- 26 July – 13 August 1999; AMS Summer Institute on Smooth Ergodic Theory and Applications; Seattle, WA, USA;
Short communication: Hyperbolic and Statistical Properties of Multi-dimensional Dispersing Billiards
- 18 – 31 August 1999; Probability and Physics of Disordered Systems Workshop; Budapest;
Short communication: Exponential Decay of Correlations in Multi-Dimensional Dispersing Billiards

- 1 – 14 May 2000; School and International Conference on Dynamical Systems; Porto, Portugal;
- 17 – 22 July 2000, Workshop on Dynamical Systems; Edinburgh, Great Britain;
Poster: Surprising Pathologies of Singularity Manifolds in Multi-dimensional Dispersing Billiards
- 28 August – 4 September 2000, Summer School on Geometric and Dynamical Aspects of Measure Theory; Révfülöp, Hungary;
- 6 – 9 September 2000, Regular and Unstable Motions in Hamiltonian Systems; Rome, Italy;
- 10 – 12 November 2000, AMS Sectional Meeting, Session on Billiards and Related Topics; Birmingham, AL, USA;
Talk: Singularities in Multi-dimensional (Semi-)Dispersing Billiards
(as invited session-speaker)
- 30 July – 17 August 2001, School and Workshop on Dynamical Systems, Abdus Salam ICTP, Trieste, Italy
Short Communication: Some nice Geometric Properties of Billiards
- 7 – 11 January 2002, Workshop on Chaotic and Conservative Dynamics (Summer Post-doctoral Program), IMPA, Rio de Janeiro, Brasil
Short Communication: Geometry of Multi-dimensional Semi-Dispersing Billiards
- 5 – 17 August 2002, Workshop and Seminar on Microscopic Chaos and Many-Particle Systems, MPIPKS, Dresden, Germany
Talk: Correlation decay in the planar periodic Lorentz gas with soft obstacles
(as invited seminar speaker)
- 17 – 22 May 2004, Pluri-thematic School on Ergodic Theory, CIRM, Marseille, France
- 23 – 28 May 2004, Conference on Multidimensional Non-uniformly Hyperbolic Dynamical Systems, CIRM, Marseille, France,
Talk: Ergodicity of two hard balls in an integrable polygon

Seminar talks (selection):

- Seminar on Statistical Physics and Dynamical Systems, jointly organized by the Mathematical Institute, Technical University of Budapest and the Rényi Institute of Mathematics, Hungary – several occasions from 1998 on;
- January 2002, IMPA, Seminário Processos Estocásticos, Rio de Janeiro, Brasil;

- May 2003 and March 2004, Institut de Mathématiques de Luminy, Séminaire Dynamique, Arithmétique et Combinatoire, Marseille, France;
- June 2003, Centre de Physique Théorique, Séminaire Dynamique Quantique et Classique, Marseille, France;
- February 2004, Institut de Mathématiques de Jussieu, Géométrie et Dynamique, Séminaire de Systèmes Dynamiques, Paris, France

Teaching Experience:

Regular teaching assistant duties from September 1998 on
in the fields of calculus, differential equations and probability theory
at Institute of Mathematics, Technical University of Budapest