Bartłomiej Mariusz Skorulski • Academic Curriculum Vitae

Contact Details

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Professional Experience

starting February 2017 Senior Data Scientist *SCRM (Lidl)*

I work on Lidl Plus project, a project that will change customer service and the way people do shopping in the chain of more than 10,000 Lidl supermarkets across Europe. My role is setting up hypothesis-driven decision-making environment and creating recommender systems. Tools used include: `Hive`, `Python`, `TensorFlow`.

June 2017 Lecturer *Universitat Politècnica de Catalunya*

Thought "Big Data Management with R" course on MESIO UPC-UB XI Summer School 2017. https://mesioupcub.masters.upc.edu/en/xi-summer-school-2017

September 2015 - February 2017 Data Scientist *King (Activision/Blizzard)*

I was helping to launch probably the best bubble shooter ever Bubble Witch 3 and working on improving the experience of 300 milions players of King's games. I was translating business needs to technical requirements and AB tests, and then working with development teams to ensure its correct implementation and tracking. I was also developing an analysis strategy and performing analysis of complex scenarios, for example, helping introducing soft currency and assuring its correct balance. Tools used include: `Hive`, `R`, `Python`.

May 2015 - August 2015 *Independent Data Scientist/Software Developer*

Collaboration on various projects that include: proposal of recommender systems for a online shop in Poland, proposals of pricing modeling.

May 2015 - August 2015 *Oxfam Intermón, Unidad de Monitoreo y evaluación de Campañas, Barcelona, Spain*

Creating web application that analyzes and visualize Oxfam Intermón campaigns on Twitter. It accesses twitter API and stores relevant information in a data base. It provides different statistics together with different visualizations like graph of connections, maps showing where participants come from etc. It exports data to csv, gephi and produces periodic reports in pdf. Tools used include: `R`.

January 2015 - April 2014 SEM Technologist *Clacktion Barcelona, Spain*

Creating Search Engine Marketing (SEM) campaigns, developing software for reporting, automatic control and creation of large online marketing campaigns.

2013-2014 *Soluciones de Gestión y Apoyo a Empresas S.L, Zaragoza, Spain*

Mathematical modelling in electric engineering, developing applications, writing and typesetting for engineering journal "Soluçoes".

2006–2013 Associate Professor *Universidad Católica del Norte, Antofagasta, Chile*

Taught graduate courses: Hyperbolic Dynamic; Ergodic Theory; Topics on Complex Analysis; Functional Analysis. Taught undergraduate courses: Complex Analysis I and II; Real Analysis; Calculus II; Functional Analysis.

Thesis Supervision: Irene Inoquio (PhD. 2010), Felipe Correa (M.Sc. 2012), Sebastian Sarmiento (M.SC. 2010), Adriana Tapia (M.Sc. 2008), Mery Choque (M.Sc. 2009) Oscar Santamaria (M.Sc., 2007), Francisco Bravo (Bachelor, 2006).

2005–2006 Postdoctoral Position *Universidad Católica del Norte*

Taught graduate course on Ergodic Theory.

2004–2005 Assistant Professor *Institute of Mathematics of the Polish Academy of Sciences, Warsaw, Poland*

Research position.

2000–2004 PhD student *Warsaw University of Technology, Warsaw, Poland*

Taught undergraduate courses: Complex Analiysis (Faculty of Mathematics and Information Science), Mathematics I, Mathematics III (Faculty of Mechatronics), Mathematics I (Faculty of Production Engineering)

1998–2000	*Faculty of Mathematics and Physics, University of Białystok – Assistant Professor*
	Taught graduate courses: Functional Analysis I and II, Orders and Numbers. Taught undergraduate courses: Topology, Combinatorics.

Higher Education

2000–2005	*Ph.D. in Mathematics*, Faculty of Mathematics and Information Sciences, Warsaw University of Technology.
	Thesis: *Metric Properties of the Julia set of some meromorphic functions*; Supervisor: Janina Kotus.
1997–1999	*M.Sc. (Hons) in Mathematics*, Faculty of Mathematics and Physics, University of Bialystok.
1994–1997	*Bachelor's Degree (Hons) in Mathematics,* Faculty of Mathematics and Physics, Warsaw University.

Visiting Researchships

Sep-Nov 2010	Université Lille 1, France
	Research on complex dynamics (invited by Prof. V. Mayer)
Jun - Aug 2009	University of North Texas, Denton, USA
	Research on random dynamics (invited by Prof. Mariusz Urbański), taught undergraduate course *Probability Models.*
Jun–Aug 2007	Polish Academy of Sciences, Warsaw, Poland
	Research on dynamics of meromorphic functions (invited by Prof. Janina Kotus)
Mar–May 2007	University of North Texas, USA
	Research on random dynamics (invited by Prof. Mariusz Urbański).
Sep–Nov 2003	University of North Texas, Denton, USA
	Research on thermodynamic formalism of entire function with Ion Coiculescu.
Apr–Jul 2003	University of Warwick, Coventry, UK
	Marie Curie Scholarship
Apr–May 2002	Centro di Ricerca Mathematica, Scuola Normale Superiore, Pisa, Italy.
	Special Research Trimester on Dynamical Systems.

List of Publications

1. Book: *Distance Expanding Random Maps, Thermodynamical Formalism, Gibbs Measures and Fractal Geometry*, Lecture Notes in Mathematics, Springer, 2011. (with V. Mayer and M. Urbański)

2. Finer Fractal Geometry for Analytic Families of Conformal Dynamical Systems, (with M. Urbanski), *Dynamical Systems 29 (2014), 369–398.*

3. Regularity and Irregularity of Fiber Dimensions of Non-Autonomous Dynamical Systems, (with V. Mayer and M. Urbanski), *Annales Academiae Scientiarum Fennicae Mathematica 38 (2013), 489–514..*

4. Dynamical Rigidity of Transcendental Meromorphic Functions, (with M. Urbanski), *Nonlinearity 25 (8) (2012),* 2337–2348.

5. The Law of Iterated Logarithm and Equilibrium Measures Versus Hausdorff Measures for Dynamically semi-Regular Meromorphic Functions, (with M. Urbanski), to apper *"Further Developments in Fractals and Related Fields", in "Trends in Mathematics" of Birkhauser.*

6. Thermodynamic formalism of transcendental entire maps of finite type. *Monatshefte für Mathematik 152*, 2 (2007), 105–123. (with Ion Coiculescu)

7. Perturbations in the Speiser class. *Rocky Mountain Journal of Mathematics 37*, 3 (2007), 763–800. (with Ion Coiculescu)

8. Multifractal analysis for the exponential family. *Discrete Contin. Dyn. Syst. 16*, 4 (2006), 857–869. (with Godofredo Iommi)

9. The existence of conformal measures for some transcendental meromorphic functions. In *Complex Dynamics: Twenty-Fife Years after the Appearance of the Mandelbrot Set*, vol. 396 of *Contemp. Math.* Amer. Math. Soc., Providence, RI, 2006, pp. 169–201.

10. Metric properties of the Julia set of some meromorphic functions with an asymptotic value eventually mapped onto a pole. *Math. Proc. Cambridge Philos. Soc. 139*, 1 (2005), 117–138.

11. Non-ergodic maps in the tangent family. *Indag. Math. (N.S.) 14*, 1 (2003), 103–118.

Research Grants

2006–2009	Chilean Science Foundation (FONDECYT)
	Project: Invariant Measures and Thermodynamic Formalism for Meromorphic Functions (Fondecyt N. 11060538), Principal Researcher.
2006–2009	Chilean Science Foundation (CONICYT)
	Low Dimensional Dynamical Systems Network, Young Researcher.
2006–2009	European Union
	Marie Curie Research Training Network CODY: Conformal Structures and Dynamics, Associate Researcher of Warsaw node.
2005	Warsaw University of Technology
	Geometric Rigidity and Multifractal Analysis for Meromorphic Function.
2004	Warsaw University of Technology
	Project: Investigation of Properties of the Julia Set of Functions of the Form $f = R(\exp(z))$, where R is a Rational Map, Principal Researcher.
2004	Warsaw University of Technology
	Project: Hausdorff Dimension and Geometry of the Julia Set for Meromorphic Functions.
2003–2006	Polish Science Foundation (KBN)
	Project: Conformal Dynamical Systems and Geometry of the Fractal Sets.
2002–2003	Warsaw University of Technology
	project: Conformal and Invariant Measures and Hausdorff Dimension of the Julia Set for Transcendental Meromorphic Functions.
2001	Warsaw University of Technology
	Project: Invariant Measures for Meromorphic Functions.
2000–2004	European Union
	Marie Curie Research Training Network CALCULEMUS: Systems for Integrated Computation and Deduction.
1997–1998	Polish Science Foundation (KBN)
	Project: Natural Artificial Intelligence Research in Automated Reasoning.

Given Talks

Jul 2013	"Regularity and irregularity of fiber dimension of non–autonomous dynamical systems",
	Thermodynamic Formalism and applications, PUC, Santiago, Chile
Jan 2012	"Hausdorff Dimension of radial Julia sets of meromorphic functions",
	Mini-Workshop: Thermodynamic Formalism, Geometry and Stochastics, Mathematisches Forschungsinstitut Oberwolfach, Germany
Dec 2009	"J-stability of Random Perturbation of Meromorphic Mappings",
	Dynamics and Analysis Seminar, University of North Texas, Denton TX, USA.

Sep 2009	"Distance Expanding Random Mappings, Thermodynamic Formalism, Gibbs Measures and Fractal Geometry",
	Dynamical Systems at Valparaíso, a satellite conference of the III CLAM, Valparaiso, Chile.
Aug 2009	"Conjuntos Aleatorios",
	El Congreso de Matemática Capricornio, COMCA 2009, Antofagasta, Chile.
Dec 2008	Minicourse: "Cómo medir fractales",
	Escuela de Sistemas Dinámicos, La Paz, Bolivia.
Oct 2008	"Random Fractal Geometry",
	Dynamics and Analysis Seminar, University of North Texas, Denton TX, USA.
Aug 2008	"Exponential Misiurewicz does not give acip"
	Conference: *COMCA 2008*, Iquique, Chile.
Aug 2007	"Dynamics of some meromorphic functions with an asymptotic value eventually mapped onto infinity"
	Conference: *First Joint International Meeting between the AMS and the PTM*, Warsaw, Poland.
Apr 2008	Geometría de conjuntos aleatorios,
	Seminario de Sistemas Dinámicos, Pontificia Universidad Católica de Chile.
Jun 2007	"Dynamics of some meromorphic functions"
	Conference: *Conformal Structures and Dynamics. The current state-of-art and perspectives*, University of Warwick, Coventry, UK.
Nov 2006	"Dinámica de funciones meromorfas"
	Conference: XII Congreso Boliviano de Matemática, Oruro, Bolivia.
Oct 2006	"Thermodynamic formalism for some meromorphic functions"
	Conference: *Coloquio LV de sistemas dinamicos*, Depto Matematicas, Universidad de Chile, Santiago, Chile.
Jul 2006	"Dynamics of real tangent family"
	Conference: *Dynamical Days*, Pontificia Universidad Católica de Chile, Santiago, Chile.
Mar 2006	Minicourse: "Introducción a Systemas Dynámicos"
	Conference: *Aniversary of the Mathematical Department*, Universidad Mayor de San Andrés, La Paz, Bolivia.
Feb 2006	Birkhoff Ergodic Theorem
	Universidad Mayor de San Andrés, La Paz, Bolivia.
Nov 2005	"Multifractal analysis for the exponential family"
	Conference: *LIV Coloquio de Sistemas Dinámicos,*, Pontificia Universidad Católica de Chile, Santiago, Chile, 7–8.11.2005.
Oct 2005	"Multifractal analysis for the exponential family"
	Univesidad Técnica Federico Santa María, Valparaiso, Chile.
Aug 2005	"Multifractal analysis for the exponential family"
	Conference: *IV Workshop on Dynamical Systems*, San Pedro de Atacama, Chile.
May 2005	Minicourse: "Zbiory Julii dla rodziny kradratowej"
	Spring School on Dynamical Systems, Bedlewo, Poland.
Apr 2005	"Własności metryczne zbiórow Julii pewnych funkcji meromorficznych"
	Uniwersytet Jagiellonski, Krakow, Poland.
Dec 2004	"Lematy o połaczeniu i zamykaniu"
	Warsaw University, Poland.
Jun 2004	"Iteration of meromorphic functions"
	Conference: *Complex Dynamics: Twenty Five Years After the Appearance of the Mandelbrot Set*, Snowbird, USA.

May 2004	Minicourse: Dynamika funkcji zespolonych, Spring School on Dynamical Systems, Bedlewo, Poland.
Nov 2003	Metric properties of some family of transcendental meromorphic functions University Of North Texas, Denton, USA.
Jun 2003	'Metric properties of some family of transcendental meromorphic functions' Conference: *Geometric Aspects of Dynamical Systems*, University of Warwick, Coventry, UK.
Apr 2003	'Non-ergodic maps in tangent family' Conference: *Holomorphic Dynamics*, University of Warwick, Coventry, UK.

OTHER SCIENTIFIC ACTIVITIES

May 2010	Member of Organising Committee of the Conference *Bicentennial Workshop on Dynamical Systems*, San Pedro de Atacama, Chile.
Aug 2009	Member of Organising Committee of the Conference *El Congreso de Matemática Capricornio, COMCA*, Antofagasta, Chile.
Aug 2009	Coordinator of the Session of Dynamical Systems of the Conference *El Congreso de Matemática Capricornio, COMCA*, Antofagasta, Chile.
May 2009	Member of Organising Committee of the Conference *Dynamical Systems II, Denton*, Denton TX, USA.
Dec 2007	Member of Organising Committee of the Workshop *Dynamical Systems Days*, Antofagasta, Chile
	2006–present Organising of the Seminar *DEA (Dinámica, Ecuaciones Y Acciones)*, Universidad Católica del Norte, Antofagasta, Chile.