

CURRICULUM VITAE

IWONA CHLEBICKA (SKRZYPCZAK)

PERSONAL DATA

AFFILIATION	University of Warsaw
BORN	20 III 1986
CITIZENSHIP	Polish
FAMILY	3 children (Jakub 2007, Piotr 2010, Liliana 2013)
PHD	December 2014
E-MAIL	i.skrzypczak@mimuw.edu.pl or i.chlebicka@mimuw.edu.pl
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RESEARCH INTEREST

nonlinear PDEs of elliptic and parabolic type involving p -Laplacian or A -Laplacian (in generalised Sobolev spaces (weighted Sobolev spaces, variable exponent spaces, Orlicz, double phase, Musielak-Orlicz spaces), approximation/density in inhomogeneous spaces, existence and regularity for measure data problems, Hardy inequalities

ACADEMIC EXPERIENCE

2018–...	Institute of Applied Mathematics and Mechanics, University of Warsaw, Assistant Professor
2016–2018	Institute of Mathematics of Polish Academy of Sciences, Assistant Professor
2015–2016	Institute of Applied Mathematics and Mechanics of University of Warsaw, Assistant Professor, half-time
2011– 2014	University of Warsaw, PhD studies in mathematical sciences; PhD Thesis defended in December 2014 with honorable distinction, ‘Hardy–type inequalities and nonlinear eigenvalue problems’, supervisor dr hab. Agnieszka Kałamajska
2005–2010	University of Warsaw, College of Inter-Faculty Individual Studies in Mathematics and Natural Sciences, MSc in Mathematics with speciality in Applied Mathematics; combined with biology and psychology. Bachelor’s Thesis ‘Methods of Derrick and Pohozaev and nonexistence results for elliptic problems’, 2008; Master Thesis ‘Ważewska–Czyżewska — Lasota Models’, 2010; supervised by A. Kałamajska.

HONORS AND CERTIFICATES

2019	Scientific Award of »Polityka«
2019	Honorable mention in Edyta Szymańska Competition for papers from years 2017-2018, UAM Poznań
2018	Scholarship START of Foundation for Polish Science with special travelling grant
2017-2020	PI of (Polish) National Science Centre Grant Sonata
2012-2015	Scholarship for the best PhD students on University of Warsaw
2012-2015	PI of (Polish) National Science Centre Grant Preludium
2010	Competition 'Girls of Future. Following Maria Skłodowska-Curie', special award of Minister of Science and Higher Education for cancer modelling
2006	Certificate in Advanced English
2005	Final stage of Olympiad of Ecological Knowledge
2004	First Certificate in English

PUBLICATIONS

23. I. Chlebicka, C. De Filippis, *Removable sets in non-uniformly elliptic problems*, *Annali di Matematica Pura ed Applicata*.
22. I. Chlebicka, *Regularizing effect of the lower-order terms in elliptic problems with Orlicz growth*, *Israel Journal of Mathematics*.
21. A. Alberico, I. Chlebicka, A. Cianchi, A. Zatorska-Goldstein, *Fully anisotropic elliptic problems with minimally integrable data*, *Calc. Var. PDE*.
20. I. Chlebicka, P. Gwiazda, A. Zatorska-Goldstein, *Renormalized solutions to parabolic equation in time and space dependent anisotropic Musielak-Orlicz spaces in absence of Lavrentiev's phenomenon*, *J. Differ. Equations* 267 (2) (2019), 1129-1166.
19. I. Chlebicka, F. Giannetti, A. Zatorska-Goldstein, *Elliptic problems in nonreflexive Orlicz spaces with measure or L^1 data*, *J. Math. Anal. Appl.* 479 (1) (2019), 185-213.
18. I. Chlebicka, *Gradient estimates for problems with Orlicz growth*, *Nonl. Anal.*
17. I. Chlebicka, P. Gwiazda, A. Zatorska-Goldstein, *Parabolic equation in time and space dependent anisotropic Musielak-Orlicz spaces in absence of Lavrentiev's phenomenon*, *Annales de l'Institut Henri Poincaré C, Analyse non linéaire* 36 (5) (2019), 1431-1465.
16. Y. Ahmida, I. Chlebicka, P. Gwiazda, A. Youssfi, *Gossez's approximation theorems in Musielak-Orlicz-Sobolev spaces*, *J. Functional Analysis* 275 (9) (2018), 2538-2571.
15. I. Chlebicka, *A pocket guide to nonlinear differential equations in Musielak-Orlicz spaces*, *Nonl. Analysis* 175 (2018), 1-27.

14. I. Chlebicka, P. Gwiazda, A. Zatorska-Goldstein, *Well-posedness of parabolic equations in the non-reflexive and anisotropic Musielak-Orlicz spaces in the class of renormalized solutions*, J. Differ. Equations 265 (11) (2018), 5716-5766.
13. I. Chlebicka, A. Zatorska-Goldstein, *Existence to nonlinear parabolic problems with unbounded weights*, J. Evol. Equations 19 (2019), 1-19.
12. P. Gwiazda, I. Skrzypczak, A. Zatorska-Goldstein, *Existence of renormalized solutions to elliptic equation in Musielak-Orlicz space*, J. Differ. Equations Vol. 264 (1) (2018), 341-377.
11. I. Skrzypczak, A. Zatorska-Goldstein, *Existence of solutions to nonlinear parabolic problems with two weights*, Coll. Math. 152 (2018) 199-215.
10. S. Dudek, I. Skrzypczak, *Liouville theorems for elliptic problems in variable exponent spaces*, Comm. Pure Appl. Anal. Vol. 16 (2) (2017), 513–532.
9. A. Kałamajska, I. Skrzypczak, *On certain new method to construct weighted Hardy-type inequalities and its application to the sharp Hardy-Poincaré inequalities*, Function spaces and inequalities, 161–173, Springer Proc. Math. Stat., 206, Springer, Singapore, 2017.
8. P. Drábek, A. Kałamajska, I. Skrzypczak, *Caccioppoli-type estimates and Hardy-type inequalities derived from weighted p -harmonic problems*, Revista Matemática Complutense 32 (3) (2019), 601-630.
7. I. Skrzypczak, *Hardy inequalities resulted from nonlinear problems dealing with A -Laplacian*, Nonlinear Differential Equations and Applications NoDEA Vol. 21 (6) (2014), 841–868.
6. I. Skrzypczak, *Hardy–Poincaré–type inequalities derived from p -harmonic problems*, Banach Center Publ. Vol. 101 (2014), 223–236.
5. I. Skrzypczak, *Hardy–type inequalities derived from p -harmonic problems*, Nonlinear Analysis TMA Vol. 93 (2013), 30–50.
4. A. Kałamajska, K. Pietruska–Pałuba, I. Skrzypczak *Nonexistence results for differential inequalities involving A -Laplacian*, Adv. Diff. Eqs. Vol. 17 no 3–4 (2012), 307–336.
3. J. Poleszczuk, I. Skrzypczak, *Tumor angiogenesis model with variable diffusion coefficient*, in the Proceedings of the Fifteenth National Conference on Application of Mathematics in Biology and Medicine, Institute of Automatic Control, Silesian University of Technology, Gliwice (2009), 104–109.
2. J. Poleszczuk, I. Skrzypczak, *Tumour angiogenesis model with variable vessels' effectiveness*, Appl. Math. (Warsaw) Vol. 38 (2011), 33–49.

1. I. Skrzypczak, *On Ważewska–Czyżewska–Lasota models*, Technical reports of the Institute of AMM of Faculty MIM UW, 189, <http://www.mimuw.edu.pl/badania/preprinty/preprinty-imsn/>, (2009).

VISITS

APRIL 2019	2 weeks in Madrid, Spain, work with of prof. Matteo Bonforte
FALL 2018	4 weeks in Parma, Italy, under the supervision of prof. Giuseppe Mingione
FEB 2018	1 week in Florence, Italy, work with prof. Andrea Cianchi
DEC 2017	2 weeks in Parma, Italy, under the supervision of prof. Giuseppe Mingione
JUNE 2017	1 week in Madrid, Spain, work with of prof. Matteo Bonforte
JAN 2017	1 week in Madrid, Spain, work with of prof. Matteo Bonforte
MAY 2015	2 weeks in Paris, France, under the supervision of Aurelie Edwards
FEB 2013	2 weeks in Pilzen, Czech Republic, work with of prof. Pavel Drabek
2013	Summer semester in Cracow (Jagiellonian University), under the supervision of dr hab. Anna Ochal

SELECTED WORKSHOP, SEMINAR AND CONFERENCE TALKS

Z-PTM	‘Renormalized solutions to strongly nonlinear parabolic problems’, 6 IX 2019, 100-ny Zjazd PTM, Kraków, Polska
FSDONA’19	‘Density of smooth functions in Musielak-Orlicz spaces’, 14 VI 2019, Workshop Regularity theory for elliptic and parabolic systems and problems in continuum mechanics, Turku, Finland [plenary]
FORUM	‘Renormalized solutions to strongly nonlinear parabolic problems’, 24 VI 2019, Forum Równań Różniczkowych, Będlewo, Polska
GAETA	‘Renormalized solutions to strongly nonlinear parabolic problems’, 20 V 2019, International Conference on Elliptic and Parabolic Problems, Gaeta, Italy
TELC	‘Gradient estimates for problems with Orlicz growth’, 4 V 2018, Workshop Regularity theory for elliptic and parabolic systems and problems in continuum mechanics, Telc, Czech Republic
PDE@IMPAN	‘Gradient estimates for problems with Orlicz growth’, 23 VI 2018, IMPAN Warsaw
MIMUW	‘Gradient estimates for problems with Orlicz growth’, 28 III 2018, MIMUW Warsaw
FLORENCE	‘Approximable solutions to measure data and L1-data elliptic problems in the Orlicz setting without growth restrictions’, 22 II 2018, Florence, Italy
PARMA	‘Absence of Lavrentiev’s phenomenon meets renormalized solutions. The Musielak-Orlicz case’, 12 XII 2017, Parma, Italy
GFMT	‘Lavrentiev’s phenomenon in the Musielak-Orlicz spaces’, 23 XI 2017, IMPAN Warsaw

- MINI 'Renormalized solutions to general elliptic and parabolic equations in Musielak-Orlicz space avoiding growth restrictions', 9 IX 2017, W MINI PW, Warsaw
- PDE@IMPAN 'Existence of renormalized solutions to nonlinear equations in Musielak-Orlicz space', 5 IX 2017, IMPAN Warsaw
- NGP 'Existence of renormalized solutions to nonlinear equations in Musielak-Orlicz space', 29 VIII 2017, Turku, Finland
- MIMUW 'Existence of renormalized solutions to nonlinear equations in Musielak-Orlicz space', 1 VI 2017, Research seminar - Equations of Mathematical Physics, MIMUW, Warsaw
- GFMT 'Existence of renormalized solutions in generalized Musielak-Orlicz spaces', 11 V 2017, Seminar in Geometric Function and Mapping Theory, IM PAN Warsaw
- YRC 'Approximation in anisotropic and non-reflexive Musielak-Orlicz spaces', 5 V 2017, Young Researchers Colloquium, IM PAN Warsaw
- NGAA 'Existence of renormalized solutions to elliptic equations in Musielak-Orlicz space', 15 III 2017, Nonstandard Growth Analysis and its Applications 2017, IMPAN Warsaw
- NONLDIFF 'Existence to nonlinear parabolic problems with unbounded weights', 19 I 2017, Seminar 'Difusion no lineal en Madrid' a joint initiative between the main universities of Madrid: UAM, UC3M, UCM, UPM y URJC, Spain
- GFMT 'Existence in double-weighted Sobolev spaces', 13 X 2016, Seminar in Geometric Function and Mapping Theory, IM PAN Warsaw
- FORUM 'Liouville theorems for elliptic problems in variable exponent spaces', 22 VI 2016, X Forum of partial differential equations, Polska, Będlewo
- MIMUW 'Calcium homeostasis in rat body. Introduction', 27 IV 2016, Biomath Seminar, MIMUW Warsaw
- MIMUW 'Hardy inequalities derived from Caccioppoli inequalities. The cases of constant and variable exponent', 11 XII 2014, MIMUW Warsaw
- VAREXP 'Hardy inequalities in variable exponent Lebesgue's spaces resulted from nonlinear problems', 29 X 2014, Variable exponent meeting, IM PAN Warsaw
- GFMT 'Hardy inequalities resulted from nonlinear problems', 24 IV 2014, Seminar in Geometric Function and Mapping Theory, IM PAN Warsaw
- NONLIN 'Hardy inequalities deduced from p-harmonic problems', 11 VI 2013, Małe Ciche
- MIMUW 'Hardy inequalities deduced from p-harmonic problems', 6 VI 2013, MIMUW Warsaw
- UJ 'Hardy inequalities deduced from p-harmonic problems', 28 V 2013, UJ Cracow
- PILSEN 'Hardy inequalities derived from p-harmonic problems', 16 II 2013, University of West Bohemia, Pilsen, Czech Republic
- CV'N'PDES 'Hardy inequalities deduced from p-harmonic problems', 10 VII 2012, Conference 'Calculus of Variations and PDEs', Szczawnica
- UJ 'Nonexistence results for nonlinear elliptic problems', 3 IV 2012, UJ Cracow
- QCM 'Nonexistence results for nonlinear eigenvalue problems', 25 IX 2011, Workshop on Quasiconformal Mappings and Mappings with finite distortion, Charles University, Prague, Czech Republic

IMPAN	‘Tumour angiogenesis model with variable vessels’ effectiveness’, 14 XII 2009, Seminar Computational Biology, IMPAN Warsaw
KKZMBM	‘Tumour angiogenesis model with variable diffusion coefficient’, 18 IX 2009, XV National Conference Application of Mathematics to Biology and Medicine, Szczyrk
CABM	‘Mathematical modelling of dynamics of red blood cells production’, 16 VI 2009, Workshop on Mathematical and Computational Approaches in Biology and Medicine, MIMUW Warsaw
IMPAN	‘Dynamics of Red Blood Cells production and Ważewska–Czyżewska—Lasota equation’, 11 V 2009, Seminar Computational Biology, IMPAN Warsaw

TEACHING

2019Z	Convex Functions and Orlicz Spaces (monograph lecture)
2018L	Ordinary Differential Equations (45h)
2018L	Mathematical Models in Biology and Medicine (30h)
2018Z	Mathematical Analysis for Interfaculty Studies on Protecting Environment (30h)
2015L	Mathematical Analysis for Computer Science II (60h)
2015L	Mathematics and Statistics II (20h)
2015Z	Mathematics for students of Faculty of Biology (30h)
2012Z	Mathematics for students of Faculty of Biology (60h)
2011Z	Mathematics for students of Faculty of Biology (60h)

SERVICE

2018	Organizer of session 18. Nonlinear Partial Differential Equations and Related Function Spaces during Joint Meeting UMI-SIMAI-PTM, September, Wrocław
2017	Organizer of Workshop Nonstandard Growth Analysis and its Applications 2017, IMPAN Warsaw
2012	Member of Local Organizing Committee of Conference ‘Calculus of Variations and PDEs’, Szczawnica