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CURRICULUM VITAE

Sławomir Michalik was born on July 20, 1972 in Warsaw, Poland. Since 2000 married and has 3 children.

EDUCATION — SCIENTIFIC DEGREES:

1991–1996, University of Warsaw, Faculty of Mathematics, Informatics and Mechanics (MIMUW)

1996, MSc in Mathematics, MIMUW, the thesis *A kernel theorem for some spaces of generalized functions* written under the supervision of dr Grzegorz Łysik

1997–2001, PhD Scholarship, Institute of Mathematics Polish Academy of Sciences (IMPAN)

2002, PhD in Mathematics, IMPAN, the thesis *Laplace distributions supported by a cone* written under supervision of dr hab. G. Łysik

2014, Habilitation in Mathematics, IMPAN, the thesis *Summability of formal solutions of linear partial differential equations with constant coefficients*

SCIENTIFIC POSITIONS:

2001–2002: Assistant and Assistant Professor, IMPAN in Warsaw

2003–2017: Assistant Professor, Cardinal Stefan Wyszyński University in Warsaw, Faculty of Mathematics and Natural Sciences, College of Sciences (UKSW)

2017–present: Associate Professor, UKSW in Warsaw

LONGER SCIENTIFIC VISITS:

2002: Potsdam University (2 months)

2008–2009: IMPAN in Warsaw (12 months)

2011–2012: IMPAN in Warsaw (12 months)

ORGANIZATION OF THE CONFERENCES:

1. *Formal and Analytic Solutions of Differential Equations*, Banach Center (BC), Będlewo, 2008
2. *Formal and Analytic Solutions of Differential and Difference Equations*, BC, Będlewo, 2011
3. *Workshop on differential and difference equations in the complex domain*, BC, Warsaw, 2012
4. *Formal and Analytic Solutions of Differential, Difference and Discrete Equations*, BC, Będlewo, 2013

5. *Global Study of Differential Equations in the Complex Domain*, BC, Warsaw, 2013
6. *Analytic, Algebraic and Geometric Aspects of Differential Equations*, BC, Będlewo, 2015
7. *Asymptotic and computational aspects of complex differential equations*, Centro di Ricerca Matematica (CRM), Pisa, 2017
8. *Complex Differential and Difference Equations*, BC, Będlewo, 2018
9. *Complex Differential and Difference Equations II*, BC, Będlewo, 2023
10. *Polish-Japanese workshop on differential equations in the complex domain*, BC, Warsaw, 2023

EDITOR OF VOLUMES:

1. *Formal and Analytic Solutions of Differential and Difference Equations*, Banach Center Publ. 97 (2012), 190 pp; Werner Balser, Galina Filipuk, Grzegorz Łysik, Sławomir Michalik (eds.).
2. *Analytic, Algebraic and Geometric Aspects of Differential Equations*, Trends in Mathematics (2017), 471 pp; Galina Filipuk, Yoshishige Haraoka, Sławomir Michalik (eds.).
3. *Formal and Analytic Solutions of Diff. Equations*, Springer Proceedings in Mathematics & Statistics (2018), 274 pp; Galina Filipuk, Alberto Lastra, Sławomir Michalik (eds.).
4. *Complex Differential and Difference Equations*, De Gruyter Proceedings in Mathematics (2020), 463 pp; Galina Filipuk, Alberto Lastra, Sławomir Michalik, Yoshitsugu Takei, Henryk Żołądek (eds.).
5. *Formal and Analytic Solutions of Differential Equations*, World Scientific (2022), 400 pp; Galina Filipuk, Alberto Lastra, Sławomir Michalik (eds.).
6. *Recent Trends in Formal and Analytic Solutions of Diff. Equations*, Contemporary Mathematics 782 (2023), 228 pp; Galina Filipuk, Alberto Lastra, Sławomir Michalik (eds.).

PHD STUDENTS:

1. Hubert Grzebuła (UKSW, defended in 2021)
2. Maria Suwińska (UKSW, defended in 2022)
3. Bożena Tkacz (UKSW, defended in 2023)

SELECTED INTERNATIONAL CONFERENCES (WITH THE TITLE OF THE TALK):

1. Formale Lösungen von gewöhnlichen und partiellen Differentialgleichungen, March 27–30, 2007, Berlin, Germany; *Summability of formal solutions to the n-dimensional inhomogeneous heat equation.*
2. Formal and Analytic Solutions of Differential Equations, August 11–16, 2008, Będlewo, Poland; *Summability of formal solutions of partial differential equations with constants coefficients.*
3. The 2nd Nagoya Workshop on Differential Equations, March 15–17, 2010, Nagoya, Japan; *Multisummability of divergent solutions of linear partial differential equations with constant coefficients.*
4. Journées des équations différentielles et fonctionnelles, June 16–18, 2010, Lille, France; *Summability of formal solutions of inhomogeneous partial differential equations.*
5. Formal and Analytic Solutions of Differential and Difference Equations, August 8–13, 2011, Będlewo, Poland; *Analytic solutions of moment-PDEs.*

6. Formal and Analytic Solutions of Differential, Difference and Discrete Equations, August 25–31, 2013, Będlewo, Poland; *On formal power series solutions of inhomogeneous linear moment partial differential equations.*

7. Functional Equations in Limoges, March 31 – April 2, 2014, Limoges, France; *Spherical means and summable solutions of some multidimensional partial differential equations.*

8. Formal and Analytic Solutions of Functional Equations, September 2–5, 2014, Valladolid, Spain; *Summability of formal solutions of some multidimensional partial differential equations.*

9. Analytic, Algebraic and Geometric Aspects of Differential Equations, September 6–19, 2015, Będlewo, Poland; *Summability of divergent solutions of some linear partial differential equations with variable coefficients.*

10. Formal and Analytic Solutions of Partial Differential Equations, August 31 – September 2, 2016, Lisbon, Portugal; *The Stokes phenomenon for linear partial differential equations with constant coefficients.*

11. Formal and Analytic Solutions of Diff. Equations, September 4–8, 2017, Alcalá de Henares, Spain; *Maximal family of solutions and Stokes lines for some moment-PDEs.*

12. Analytic and Algebraic Methods in Differential Equations, October 31 – November 2, 2017, Moscow, Russia; *Hyperasymptotics and Stokes phenomenon for some partial differential equations.*

13. Formal and Analytic Solutions of Partial Differential Equations, June 26–29, 2018, Padova, Italy; *Newton polygons and Gevrey indices for moment partial differential operators.*

14. Complex Differential and Difference Equations, September 10–14, 2018, Będlewo, Poland; *Gevrey estimate and summability for some moment partial differential equations.*

15. Formal and analytic solutions of functional equations on the complex domain, December 17–20, 2018, Kyoto, Japan; *Formal and analytic solutions of some moment partial differential equations I, II.*

16. Formal and Analytic Solutions of Functional Equations 2019, September 9–12, 2019, Valladolid, Spain; *Summability of formal power series solutions of Goursat problem for linear partial differential equations with constant coefficients.*

17. Formal and Analytic Solutions of Diff. Equations (online), June 28–29, 2020, Alcalá de Henares, Spain; *Summable solutions of the Goursat problem for linear partial differential equations with constant coefficients.*

18. Contemporary Mathematics in Kielce 2020 (online), February 24–27, 2021, Kielce, Poland; *Summable solutions of the Goursat problem for some linear PDEs with constant coefficients.*

19. Formal and Analytic Solutions of Diff. Equations on the Internet, June 28 – July 2, 2021, Alcalá de Henares, Spain; *Summable solutions of the Goursat problem for some inhomogeneous PDEs.*

20. Complex Differential and Difference Equations II, August 28 – September 1, 2023, Będlewo, Poland; *On sequences preserving summability.*

21. Polish-Japanese workshop on differential equations in the complex domain, September 4–8, 2023, Warsaw, Poland; *On the characterization of formal automorphisms of integro-differential operators.*

LIST OF PUBLICATIONS:

1. *On sequences preserving q-Gevrey asymptotic expansions*, Anal. Math. Phys. 14, 17 (2024) (together with Alberto Lastra).

2. *On the summability and convergence of formal solutions of linear q-difference-differential equations with constant coefficients*, Math. Ann. 389 (2024), 1099–1130 (together with Kunio Ichinobe).

3. *On polyharmonic polynomials*, Acta Math. Hungar. 169, 325–348 (2023) (together with Hubert Grzebuła).

4. *Some notes on moment partial differential equations. Application to fractional functional equations*, in Recent Trends in Formal and Analytic Solutions of Diff. Equations, Contemporary Mathematics, vol. 782, Amer. Math. Soc., Providence, RI, 2023, 219–228 (together with Alberto Lastra and Maria Suwińska).

5. *Multisummability of formal solutions for a family of generalized singularly perturbed moment differential equations*, Results Math 78:49 (2023) (together with Alberto Lastra and Maria Suwińska).

6. *Summable solutions of the Goursat problem for some partial differential equations with constant coefficients*, J. Differential Equations 304 (2021), 435–466.

7. *Summability of formal solutions for a family of generalized moment integro-differential equations*, Fract. Calc. Appl. Anal. 24 (2021), 1445–1476 (together with Alberto Lastra and Maria Suwińska).

8. *Estimates of formal solutions for some generalized moment partial differential equations*, J. Math. Anal. Appl. 500:125094 (2021) (together with Alberto Lastra and Maria Suwińska).

9. *Summability of formal solutions for some generalized moment partial differential equations*, Results Math. 76:22 (2021) (together with Alberto Lastra and Maria Suwińska).

10. *Gevrey estimates for certain moment partial differential equations*, Complex Differential and Difference Equations, De Gruyter Proceedings in Mathematics (2020), 391–408 (together with Maria Suwińska).

11. *The Stokes phenomenon for some moment partial differential equations*, J. Dyn. Control Syst. 25 (2019), 573–598 (together with Bożena Tkacz).

12. *Spherical polyharmonics and Poisson kernels for polyharmonic functions*, Complex Var. Elliptic Equ. 64 (2019), 420–442 (together with Hubert Grzebuła).

13. *Hyperasymptotic solutions for certain partial differential equations*, Formal and Analytic Solutions of Diff. Equations, Springer Proceedings in Mathematics & Statistics 256 (2018), 61–78 (together with Maria Suwińska).

14. *Analytic and summable solutions of inhomogeneous moment partial differential equations*, Funkcial. Ekvac. 60 (2017), 325–351.

15. *A Dirichlet type problem for complex polyharmonic functions*, Acta Math. Hungar. 153 (2017), 216–229 (together with Hubert Grzebuła).

16. *The Stokes phenomenon for certain partial differential equations with meromorphic initial data*, Asymptot. Anal. 99 (2016), 163–182 (together with Bożena Podhajecka).

17. *Summable solutions of some partial differential equations and generalised integral means*, J. Math. Anal. Appl. 444 (2016), 1242–1259.

18. *Summability of formal solutions of linear partial differential equations with divergent initial data*, J. Math. Anal. Appl. 406 (2013), 243–260.

19. *Analytic solutions of moment partial differential equations with constant coefficients*, Funkcial. Ekvac. 56 (2013), 19–50.

20. *On Borel summable solutions of the multidimensional heat equation*, Ann. Polon. Math. 105 (2012), 167–177.

21. *Multisummability of formal solutions of inhomogeneous linear partial differential equations with constant coefficients*, J. Dyn. Control Syst. 18 (2012), 103–133.

22. *On the multisummability of divergent solutions of linear partial differential equations with constant coefficients*, J. Differential Equations 249 (2010), 551–570 (with: *Corrigendum to "On the multisummability of divergent solutions of linear partial differential equations with constant coefficients" [J. Differential Equations 249 (2010), 551–570]*, J. Differential Equations 255 (2013), 2400–2401).

23. *Summability and fractional linear partial differential equations*, J. Dyn. Control Syst. 16 (2010), 557–584.

24. *Laplace ultradistributions supported by a cone*, Banach Center Publ. 88 (2010), 229–241.

25. *Summability of formal solutions to the n-dimensional inhomogeneous heat equation*, J. Math. Anal. Appl. 347 (2008), 323–332.

26. *Formal solutions of semilinear heat equations*, J. Math. Anal. Appl. 341 (2008), 372–385 (together with Grzegorz Łysik).

27. *Summability of divergent solutions of the n-dimensional heat equation*, J. Differential Equations 229 (2006), 353–366.

28. *The Cauchy kernel for cones*, Studia Math. 163 (2004), 21–39.

29. *Laplace distributions and hyperfunctions on simplicial cones*, Integral Transforms Spec. Funct. 14 (2003), 307–320.

30. *The kernel theorem for Laplace ultradistributions*, Ann. Polon. Math. 77 (2001), 209–217.