CURRICULUM VITAE

Milan Miklavčič

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Contact

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Education

1973 - 1977	University of Ljubljana, Slovenia B.S. in Physics
1979 - 1981	Virginia Polytechnic Institute and State University (VPI) Ph.D. in Mathematics

Professional experience

1979 1983 - 1984	Research Associate Center for Electrooptics, Ljubljana, Slovenia
Spring 1982	Visiting Assistant Professor Department of Mathematical Sciences, Rensselaer Polytechnic Institute
Summer 1982 Summer 1985	Research Associate Center for Transport Theory and Mathematical Physics, VPI
1982 - 1983 1989 - 1990	Research Associate (postdoctoral member) Visiting (on leave from MSU) Institute for Mathematics and its Applications, University of Minnesota
1984 - 1985	Research Associate (postdoctoral member) Mathematics Research Center, University of Wisconsin - Madison
1985 - 1990 From 1990	Assistant Professor Associate Professor Department of Mathematics, Michigan State University

Research area

partial differential equations, numerical analysis,
applied functional analysis, mathematical physics

Grants

AURIG grant from MSU (1988)
NSF Math. Sci. Res. Eq. grant (1988, with Fintushel, Hall, Ulrich, Yen)
1/2 of the support for my stay at IMA (89/90) came from IMA
Consiglio Nazionale Delle Ricerche (Italian NSF, 1990, with Spiga)

Selected talks

Slovenian World Congress (Slovenia, 2007, 2009)
University of Ljubljana (Slovenia, 2006)
University of Parma (Italy 1996, 2006)
Universities of Trento, Bologna, Firenze (Italy 1984)
Universities of Bari, Napoli, Ferrara (Italy 1990)
IMA, University of Minnesota (1990, 1982)
University of Michigan (1989)
Universities of Wisconsin, Pennsylvania (1984)

Conference on Numerical Solutions of Partial Differential Equations
(Virginia Tech, 1988)

27th meeting of the Society for Natural Philosophy
(University of Wisconsin - Madison, 1984)

Workshop on Exterior Domain Problems in Mechanics
(Howard University, 1983)
Symposium on Nonlinear Semigroups, Partial Differential Equations and Attractors
(Howard University, 1985)

Ph. D. students

Jaegwi Go, defended 2004
Amy Kupier, defended 2006

Served on many Ph.D. Committees:

Sanjay Agrawal (ME, defended 1992),
Khoury Suheil (Math, defended 1994),
Anjan Ray (ME, defended 1996),
Paul Gray (Math, defended 1996),
Klaus Weispfenning (Chem, defended 1997),
Colin Mackinnon (ME, defended 1998),
Robert Vance (ME, defended 2001),
Apiwattanalunggarn Polarit (ME, defended 2003),
Mahmood Rahi (ME),
Yabo Guan (ME, defended 2003),
Novozhilova, Lidiya (Math, defended 2003)
Liu, Jun (Math, defended 2020)

Teaching and committee work

	Fall	Winter	Spring	Committee
1985 - 1986	215, 422	426	857	
1986 - 1987	215, 310	422	857	
1987 - 1988	310, 844	845	846	
1988 - 1989	215, 884	310	422	
1989 - 1990	IMA	IMA	351, 857	
1990 - 1991	844, 422	845, 351	846	Advisory
1991 - 1992	886	887, 214	888, 215	Graduate, Hiring

Teaching and committee work continued

	Fall	Winter	Spring	Committee
1992 - 1993	235, 297A		297B, 297B	Judiciary, Hiring
1993 - 1994	235, 443		235x2	Hiring
1994 - 1995	940, 441		234, 124	
1995 - 1996	sabbatical		234x2	
1996 - 1997	235, 940		235x2	Computer
1997 - 1998	132, 351		235, 424	Computer
1998 - 1999	235, 451		235, 452	Computer
1999 - 2000	235, 451		235, 442	Computer
2000 - 2001	235, 850		235, 851	Computer, Hiring
2001 - 2002	451, 841		132, 842	Tech, Library
2002 - 2003	451, 940		235, 941	Tech, Library
2003 - 2004	235, 841, 850		842	Tech, Library
2004 - 2005	235, 451		235x2	Tech, Hiring
2005 - 2006	235x2		235x2	
2006 - 2007	sabbatical		235	Associate Chair CNS scholarships MUMC conf. org. student res. conf.
2007 - 2008	234			Associate Chair...
2008 - 2009	234			Associate Chair...
2009 - 2010	235			Associate Chair...
2010 - 2011	234		234, 314	
2011 - 2012	2x132		340, 314	
2012 - 2013	132, 340		132, 234	
2013 - 2014	sabbatical		234, 314	
2014 - 2015	2x132		314	
2015 - 2016	2x132		132,234	
2016 -2017	132, 451		2x133	Fac. Senate, U Council
2017 -2018	133, 314		340	Fac. Senate, U Council
2018 -2019	340		340, 442	Fac. Senate, U Council
2019 -2020	451x2		852	Fac. Senate, U Council
2020 -2021	sabbatical		234	
2021 - 2022	234		234	

Publications

1. Generalized Maxwell method for solving kinetic boundary-value problems, in *Mathematical Problems in the Kinetic Theory of Gases*, pp. 113-128, P. D. Lang, Frankfurt a. M. (1980). (Proc. Conf. Oberwolfach 1979, edited by D. C. Pack and H. Neunzert). (with I. Kuščer)

2. Pressure corrections in measurements of energy accommodation coefficients, *Int. J. Heat Mass Transfer* **23**(1980), 1279-1302. (with I. Kuščer)

3. Stability of mean flows over an infinite flat plate, *Arch. Rational Mech. Anal.* **80**(1982), 57-69. (with M. Williams)

4. Eigenvalues of the Orr-Sommerfeld equation in an unbounded domain, *Arch. Rational Mech. Anal.* **83**(1983), 221-228.

5. Nonlinear stability of asymptotic suction, *AMS Transactions* **281**(1984), 215-231. (also IMA Preprint Series 5, 1982)

6. Single-mode saturation of a linearly unstable plasma, *Phys. Fluids* **28**(1) (1985), 110-115. (with P. F. Zweifel, C. Burnap, B. L. Willis)

7. Stability for semilinear parabolic equations with noninvertible linear operator, *Pacific J. Math.* **118**(1) (1985), 199-214. (also IMA Preprint Series 22, 1983)

8. Linear and nonlinear plasma oscillations, *Il Nuovo Cimento* **87A**, N. 2, (1985), 162-173. (with P. F. Zweifel, C. Burnap, B. L. Willis)

9. Non-linear plasma oscillations, *Proceedings of the Workshop on Mathematical Aspects of Fluid and Plasma Dynamics*, edited by C. Cercignani, S. Rionero, M. Tessarotto, Trieste (1985). (with P. F. Zweifel, C. Burnap, B. L. Willis)

10. On limit states of a linearized Boltzmann Equation, *SIAM J. Math. Anal.* **19**(1988), 150-152.

11. Asymptotic periodicity of the iterates of positivity preserving operators, *AMS Transactions* **307**(1988), 469-479.

12. Galerkin approximations of semilinear parabolic equations, submitted 1986 to *SIAM J. Num. Anal.*

13. A truncated model for control of a flexible robot arm, *Proceedings of the 19th annual Pittsburg conference on modeling and simulation* May 1988, 2051-2055. (with Y. Chait, C. J. Radcliffe, C. R. MacCluer)

14. The temperature stability of a radiant slab-on-grade, *ASHRAE Transactions* **95**(1989), Pt.1. (with C. R. MacCluer, Y. Chait)

15. Approximations for weakly nonlinear evolution equations, *Math. Comp.* **53**(1989), 471-484.

16. A natural modal expansion for the flexible robot arm problem via a self-adjoint formulation, *IEEE Transactions of Robotics and Automation* **6**(1990), 601-603. (with Y. Chait, C. J. Radcliffe, C. R. MacCluer)

17. Galerkin approximations for weakly nonlinear second order evolution equations, *Funkcialaj Ekvacioj* **33**(1990), 291-305.

18. State space representation of the nonself-adjoint acoustic duct system, *Journal of Vibration and Acoustic* **112**(1990), 483-488. Also in *Proc. ASME 1989 WAM, San Francisco.* (with A. J. Hull, C. J. Radcliffe, C. R. MacCluer)

19. Galerkin approximations for singular linear elliptic and semilinear parabolic problems, *Appl. Anal.* **40**(1991), 41-52. (with S.-N. Chow, D. R. Dunninger)

20. Eigenvalues of the Orr-Sommerfeld equation, *Differential & Integral Equations* **4**(1991), 731-737.

21. On a semilinear biharmonic equation, *J. Nonlinear Anal. Th. Met. Appl.* **16**(1991), 383-387. (with D. R. Dunninger)

22. A sharp condition for existence of an inertial manifold, *Journal of Dynamics and Differential Equations* **3**(1991), 437-456. (also IMA Preprint Series 604)

23. Impulsive stretching of a surface in a viscous fluid, *SIAM J. Appl. Math.* **57**(1997), 1-14. (with C. C. Chang, Q. Du and C. Y. Wang)

24. Applied Functional Analysis and Partial Differential Equations, *World Scientific*, 1998.

25. Stability of Maxwellian states for the Broadwell model of the extended Boltzmann equation, *Z. angew. Math. Phys.* **49**(1998), 590-601. (with G. Spiga)

26. Stability of Maxwellian states for discrete velocity models of the extended Boltzmann equation, *Rendiconti del Circolo Matematico Di Palermo, Serie II, Suppl.* **57**(1998), pp.465-470. (with G. Spiga)

27. On the nonlinear stability of Maxwellian states for discrete velocity models of the extended Boltzmann equation, *J. Phys. A: Math. Gen.* **31**(1998) 5393-5400. (with G. Spiga)

28. Stability of diffusion flames, presented at a SIAM conference on Combustion in Florida, March 2000. (with I. Wichman, R. Vance)

29. On the stability of one-dimensional diffusion flames established between plane, parallel, porous walls, *Combustion Theory and Modelling* **5** No 2 (2001) 147-161. (with I. Wichman, R. Vance)

30. The flow due to a rough rotating disk, *Z. angew. Math. Phys.* (ZAMP) **54** No 2 (2004) 235-246. (with C. Y. Wang)

31. Layered Von Kármán's swirling flow, *J. Math. Anal. Appl.* **294** No 1 (2004) 24-33.

32. Oscillations and Island Evolution in Radiating Diffusion Flames, *Combustion Theory and Modelling* **9** No 3 (2005) 403-416. (with A. Moore and I. Wichman)

33. Viscous flow due to a shrinking sheet, *Quart. Appl. Math.* **64** (2006), 283-298. (with C.Y. Wang)

34. Period Doubling Cascade in Diffusion Flames, *Combustion Theory and Modelling* **11** No 1 (2007), 103-112.

35. Completely Passive Natural Convection, *ZAMM, Zeitschrift für Angewandte Mathematik und Mechanik* **91** No 7 (2011), 601-606. (with C.Y. Wang)

36. Reply to comments by W. Schneider concerning the paper by M. Miklavcic and C. Y. Wang Completely passive natural convection ZAMM 91(7), 601-606 (2011), *ZAMM* **91** No 12 (2011), 1004. (with C.Y. Wang)

37. Optimal overlap length in staggered architecture composites under dynamic loading conditions, *Journal of the Mechanics and Physics of Solids* **61**(1) (2013), 145-160. (with Abhishek Dutta and Srinivasan Arjun Tekalur)

38. Instability of viscous flows over a shrinking sheet, *Quart. Appl. Math.* **72** (2014), 363-371.

39. Stability analysis of some fully developed mixed convection flows in a vertical channel, Z. Angew. Math. Mech. (ZAMM) **95** (2015), 982-996.

40. On fully developed mixed convection with viscous dissipation in a vertical channel and its stability, Z. Angew. Math. Mech. (ZAMM) **96**(2016), 1457-1466. (with A. Barletta).

41. Theoretical and Numerical Analysis of Oscillating Diffusion Flames, Combustion and Flame, **173**(2016), 99-105. (With I. Wichman).

42. Instability of fully developed mixed convection with viscous dissipation in a vertical porous channel, Transp Porous Med, **117**(2017), 337-347. (with A. Barletta).

43. Oscillatory Burner-Attached Diffusion Flame in a Viscous Vortex, Combustion Science and Technology, **190**:12 (2018), 2188-2202, DOI:10.1080/00102202.2018.1497018 (with I. Wichman).

44. Bistable fully developed mixed convection flow with viscous dissipation in a vertical channel, Royal Society Open Science, **5**:171880, 2018.