

CURRICULUM VITAE

Dr. Ludmila Shvartsman, Senior Lecturer
October, 2020

WORK ADDRESS: ORT Braude College, Department of Mathematics
P.O. Box 78, Karmiel, 21982, Israel
Tel: 972-4-9901829, Fax: 972-4-908-6425
E-mail: sluda@braude.ac.il

EDUCATION

- 1985 **Ph.D.** (Physics and Mathematics) Voronezh State University, USSR
Dissertation: On periodic solutions of quasilinear parabolic equations with deflection argument
- 1982 **M.Sc.** (Mathematics) Voronezh State University, USSR
Dissertation: On the problem of periodic solutions of parabolic equations with deflection argument

ACADEMIC EXPERIENCE

- 2004-present Senior Lecturer, ORT Braude College, Karmiel, Israel
- 1997-2004 Lecturer, ORT Braude College, Karmiel, Israel
- 2008-2012 Adjunct Senior Lecturer, Technion, Haifa, Israel
- 1997-2008 Adjunct Lecturer, Technion, Haifa, Israel
- 1995-1997 Adjunct Lecturer, "Oranim", School of Education, Kiryat Tivon, Israel
- 1993 Associate Professor, Yaroslavl Polytechnic Institute, Yaroslavl, Russia
- 1991-1993 Senior Lecturer, Yaroslavl Polytechnic Institute, Yaroslavl, Russia
- 1991-1993 Adjunct Lecturer, Yaroslavl State University, Yaroslavl, Russia
- 1988-1991 Lecturer, Yaroslavl Polytechnic Institute, Yaroslavl, Russia

TEACHING EXPERIENCE

ORT Braude College:

Undergraduate Courses:

Advanced Calculus 1
Advanced Calculus 2
Advanced Linear Algebra
Advanced Linear Algebra 1

Advanced Linear Algebra 2
Advanced Mathematics (Ordinary Differential Equations, Partial Differential Equations,
Laplace Transform and Fourier Series)
Calculus 1
Calculus 2
Complex Functions
Differential Equations for Mechanical Engineering
Linear Algebra
Infinitesimal Calculus 2
Series, Transforms and Differential Equations

OTHER UNIVERSITIES:

The Technion:

Undergraduate Courses:

Advanced Calculus 1
Advanced Calculus 2
Advanced Linear Algebra
Calculus 1
Calculus 2
Linear Algebra

Oranim, School of Education:

Undergraduate Courses:

Calculus

Yaroslavl State University:

Graduate Courses:

Selected Topics in Mathematical Analysis

Undergraduate Courses:

Linear Algebra

Yaroslavl Polytechnic Institute:

Undergraduate Courses:

Elements of Mathematical Analysis, Linear Algebra and Combinatorial Analysis

Differential Equations

Linear Algebra and Geometry

Mathematical Analysis

Theory of Probability and Mathematical Statistics

RESEARCH INTEREST

Differential Equations

Mathematical Education

ACADEMIC AND PROFESSIONAL AWARDS and GRANTS

2017 Award of Excellence, ORT Braude College

2014 Award of Excellence, ORT Braude College

- 2006 Award of Excellence, ORT Braude College
- 2005 Award of Excellence, ORT Braude College
- 2004 Award of Excellence, ORT Braude College
- 2003 Award of Excellence, ORT Braude College

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- Israel Mathematical Union
- American Mathematical Society
- European Mathematical Society
- European Society for Research in Mathematics Education

PROFESSIONAL ACTIVITIES

- 2018-present Member of the Faculty Renewal Committee, Department of Mathematics, ORT Braude College
- 2018 Member of the Organizing Committee of the Workshop on Mathematical Education in Science and Technology, ORT Braude College
- 2016 Member of the Organizing Committee of the Workshop on Mathematical Education in Science and Technology, ORT Braude College
- 2014-2018 Chairman of the Studentships Committee, ORT Braude College
- 2013-present Member of the Committee for Academic Studying Programs, Department of Mathematics, ORT Braude College
- 2011-2013 Member of the Committee for E-Learning, ORT Braude College
- 2010-present Academic Advisor to Students in the Program of Applied Mathematics, Department of Mathematics, ORT Braude College
- 2009-2012 Member of the Committee for Academic Affairs, ORT Braude College
- 2008-present Member of Academic Council of Department of Mathematics, ORT Braude College
- 2008 Member of the Organizing Committee of the Fourth International Conference on Complex Analysis and Dynamical Systems, Naharya, Israel
- 2006-2010 Member of the Computers Committee, ORT Braude College
- 2005-2007 Participation in the project "Cooperative and Active Learning in Calculus 2", ORT Braude College
- 2005-2006 Member of the Organizing Committee of the Third International Conference on Complex Analysis and Dynamical Systems, Naharya, Israel
- 2003 Member of the Organizing Committee of the Second International Conference on Complex Analysis and Dynamical Systems, Naharya, Israel
- 2001-2008 Deputy Chairperson, Academic Council of Department of Mathematics, Coordinator of Teaching, ORT Braude College
- 2001 Member of the Organizing Committee of the Conference "Complex Analysis & Dynamical Systems", Karmiel, Israel

- 2000-2003 Participation in the project “Integration of the Internet in Teaching”,
ORT Braude College
- 1999 Member of the Organizing Committee of the Conference “Braude
College Days of Differential Equations and Applied Analysis”, Karmiel,
Israel

Reviewing papers for

- Proceedings of CERME 8
Proceedings of CERME 6
Proceedings of CERME 5

Participation in conferences

- 2018 The 11th Whitney Problems Workshop, Trinity College Dublin, Dublin, Ireland
- 2018 Workshop on Mathematical Education in Science and Technology, Karmiel,
Israel
- 2016 Workshop on Mathematical Education in Science and Technology, Karmiel,
Israel
- 2015 Conference in Analysis, Florida Atlantic University, Boca Raton, Florida
- 2010 Conference “Initiatives to Promote Learning in Higher Education”, Karmiel,
Israel
- 2009 Matrix Theory Conference, the Technion, Haifa, Israel
- 2008 Conference “Advanced Mathematical Thinking”, the Technion, Haifa, Israel
- 2008 The 5th International Conference on Creativity in Mathematics and the
Education of Gifted, Haifa University, Haifa, Israel
- 2007 CERME 5, Larnaca, Cyprus
- 2006 Conference “Mathematical Education in Israel – Where to?”, The Technion,
Haifa, Israel
- 2006 The Annual Conference of Israel Mathematical Union, Neve Ilan, Israel
- 2005 The Fourth Mediterranean Conference on Mathematics Education, Palermo,
Italy
- 2005 Conference “New Initiatives for Promotion of Learning in High Education”,
Karmiel, Israel
- 2004 Meital 3rd Annual Conference on E-learning in Higher Education, Tel Aviv
University, Tel Aviv, Israel
- 1988 Workshop on Complex Analysis, Evolution Equations and Applications,
Karmiel, Israel
- 1984 The All-Union School in Operator Theory on Functional Spaces, Ternopol
Pedagogical Institute, Ternopol, USSR
- 1983 The All-Union School in Operator Theory on Functional Spaces, Latvian State
University, Riga, USSR

Colloquium & Seminar Lectures

- 2020 Seminar on Education, ORT Braude College, Karmiel, Israel
- 2014 The Tenth Research Conference of the ORT Braude College, Karmiel, Israel
- 2014 Seminar on Education, ORT Braude College, Karmiel, Israel

- 2012 Seminar on Education, ORT Braude College, Karmiel, Israel
- 2010 Seminar on Education, ORT Braude College, Karmiel, Israel
- 2009 The Fifth Research Conference of the ORT Braude College, Karmiel, Israel
- 2009 Methodical Seminar, Ariel University Center of Samaria, Ariel, Israel
- 2008 The Fourth Research Conference of the ORT Braude College, Karmiel, Israel
- 2007 The Third Research Conference of the ORT Braude College, Karmiel, Israel
- 2006 The Second Research Conference of the ORT Braude College, Karmiel, Israel
- 2006 Seminar on Education, ORT Braude College, Karmiel, Israel
- 2002 Conference “Integration of the Internet in Teaching”, ORT Braude College, Karmiel, Israel
- 2000 Conference on “Teaching of Mathematics in Institutes of Higher Education”, ORT Braude College, Karmiel, Israel

LIST OF PUBLICATIONS

Ph.D. Theses

On periodic solutions of quasilinear parabolic equations with deflection argument, Voronezh, 1985, 111 pp.

Books and Chapters in Books

1. B. Abramovitz, M. Berezina, A. Berman, L. Shvartsman, *Educating Undergraduate Students to Understand Mathematics*, Saarbrücken, Germany, LAP Lambert Academic Publishing, ISBN: 978-620-2-01048-1, 2017, 137 pp.
2. B. Abramovitz, M. Berezina, A. Berman, L. Shvartsman, A Blended Learning Approach in Mathematics. In A. A. Juan, M. A. Huertas, S. Trenholm, C. Steegmann (Eds.), *Teaching Mathematics Online: Emergent Technologies and Methodologies*, 2011, IGI Global, pp 22-42.
3. B. Abramovitz, M. Berzina, L. Shvartsman, *Calculus of Several Variables*, Jerusalem: Magnes Press, the Hebrew University, ISBN: 978-965-493-322-3, 2008, 334 pp.

Refereed Papers

1. A. Berman, L. Shvartsman, *Definitions are important: The case of linear algebra*, European Journal of Science and Mathematics Education, 2016, 4(1), 26-32.
2. B. Abramovitz, M. Berezina, A. Berman, L. Shvartsman, *How to understand a theorem?*, International Journal of Mathematical Education in Science and Technology, Taylor & Francis, 2009, Vol. 40, No. 5, pp. 577-586.
3. V.K. Mjasnikov, I.Yu. Shirokov, L.V. Shvartsman, *Analysis of the imitating function models of robot-technological complex*, Yaroslavl Polytechnic Institute , Yaroslavl, Dep. VINITI, 1990, 5893-90 Dep., pp. 1-11.
4. V.K. Mjasnikov, L.V. Shvartsman, *Imitating function models of measuring robot-technological complex*, Yaroslavl Polytechnic Institute , Yaroslavl, Dep. VINITI, 1990, 5893-90 Dep., pp. 1-21.
5. M.I. Kamenskiyi, L.V. Shvartsman, *On periodic solutions of parabolic equations with delaying argument*, Applied methods of the functional analysis, Voronezh State Univ., Voronezh, 1985, pp. 47-56.

6. L.V. Shvartsman, *On periodic solutions of the parabolic equations with delaying argument*, Voronezh State Univ., Voronezh, Dep. VINITI, 1985, 5288-85 Dep., pp. 1-26.
7. L.V. Shvartsman, *On reversibility of the elliptic operators with almost-periodic coefficients*, Voronezh State Univ., Voronezh, Dep. VINITI, 1985, 4349-85 Dep., pp. 1-27.
8. L.V. Shvartsman, *An application of Galerkin's method to the parabolic equations with delaying argument*, Voronezh State Univ., Voronezh, Dep. VINITI, 1985, pp. 237-85 Dep., 1-29.
9. L.V. Shvartsman, *The average principle and periodic solutions of the parabolic equations with delaying argument*, Ukrainian Mathematical Journal, **2**, 1985, pp. 61-69.
10. L.V. Shvartsman, *On elliptic difference-differential equations*, Boundary value problems, Perm Polytechnic Institute, Perm, 1985, pp. 78-83.

Refereed Conference Publications

1. A. Berman, B. Koichu, L. Shvartsman, *The undersdanding understanding equivalence of matrices*, Proceedings of CERME 8, Antalya, Turkey, 2013, pp 2296-2305.
2. B. Abramovitz, A. Berman, M. Berzina, L. Shvartsman, *Some Initiatives in Calculus Teaching*, Proceedings of the 10th International Conference “Modeles in Developing Mathematics Education”, ISBN 83-919465-9-2, Drezden, 2009, pp. 10-14.
3. B. Abramovitz, A. Berman, M. Berzina, L. Shvartsman, *Proofs and “Puzzles”*, Proceedings of the 10th International Conference “Modeles in Developing Mathematics Education”, ISBN 83-919465-9-2, Drezden, 2009, pp. 5-9.
4. B. Abramovitz, M. Berzina, B. Koichu, L. Shvartsman, *Urging calculus students to be active learners: what works and what doesn't*, Proceedings of CERME 6, Lyon, 2009, pp. 2376-2385.
5. B. Abramovitz, A. Berman, M. Berzina, L. Shvartsman, *Lagrange's theorem: what does the theorem mean?*, Proceedings of CERME 5, ISBN 978-9963-671-25-0, Cyprus, 2007, pp. 2231-2240.
6. B. Abramovitz, A. Berman, M. Berzina, L. Shvartsman, *Difficulties in constructing multiple choice tests*, Proceedings of The 3rd International Conference on The Teaching at The Undergraduate Level, Paper 222, ISBN: 0471072709, Turkey , 30 June – 5 July, 2006, 5 pp.
7. B. Abramovitz, A. Berman, M. Berzina, L. Shvartsman, *Improving students' proving*, Proceedings of The 3rd International Conference on The Teaching at The Undergraduate Level, Paper 218, ISBN: 0471072709, Turkey , 30 June – 5 July, 2006, 4 pp.
8. B. Abramovitz, A. Berman, M. Berzina, L. Shvartsman, *“Procedural” is not enough*, Proceedings of The Fourth Mediterranean Conference on Mathematics Education, Palermo, ISBN: 9963777082, Italy, 28-30 January, 2005, pp. 599-607.
9. L.V. Shvartsman, *The average principle of parabolic equations with retarding argument*, All-Union School on Operator Theory in Functional Spaces, Ternopol Pedagogical Institute, Ternopol, 1984, pp. 157-159.

10. M.I. Kamenskyi, L.V. Shvartsman, *To one method of investigation of parabolic equations with delaying argument*, All-Union School on Operator Theory in Functional Spaces, Latvian State Univ., Riga, 1983, pp. 112-114.

Conference Proceedings and Abstracts

1. A. Berman, B. Koichu, L. Shvartsman, *Understanding of the Concept of Equivalence Relations*, Matrix Theory Conference, the Technion, Haifa, Israel, 2009.
2. B. Abramovitz, A. Berman, M. Berzina, L. Shvartsman, *How to make the best of multiple choice tests*, International Congress of Mathematics, Madrid, Spain, 2006.

Teaching Material

1. M. Berzina, L. Shvartsman, *Calculus 1: Problems for self-learning*, 2020, 68 pp.
2. B. Abramovitz, M. Berzina, L. Shvartsman, *Calculus 2: Problems for self-learning*, 2018, 52 pp.
3. L. Shvartsman, *Advanced Algebra: Recommended problems for tutorials (with solutions)*, ORT Braude College, Karmiel, 2017, 125 pp.
4. L. Shvartsman, *Calculus 2: Recommended problems for tutorials (with solutions)*, ORT Braude College, Karmiel, 2016, 124 pp.
5. L. Shvartsman, *Lectures in Advanced Algebra*, ORT Braude College, Karmiel, 2014, 192 pp.
6. L. Shvartsman, *Complex Functions. Problems with solutions*, ORT Braude College, Karmiel, 2013, 59 pp.
7. L. Shvartsman, *Series, Transforms and Differential Equations*, ORT Braude College, Karmiel, 2008, 90 pp.
8. L. Shvartsman, *Theorems and Problems in Algebra*, ORT Braude College, Karmiel, 2006, 23 pp.
9. L. Shvartsman, *Algebra: Concepts and Assertions*, ORT Braude College, Karmiel, 2005, 60 pp.
10. A. Goldvard, L. Shvartsman, *Problems and Exercises in Algebra*, ORT Braude College, Karmiel, 2005, 65 pp.
11. L. Shvartsman, *Lectures in Calculus 1*, ORT Braude College, Karmiel, 2004, 125 pp.
12. L. Shvartsman, *Linear Algebra: Definitions and Theorems*, ORT Braude College, Karmiel, 2002, 41 pp.
13. M. Elin, I. Karelin, L. Shvartsman, *Fourier Series and Partial Differential Equations, Theory and problems*, ORT Braude College, Karmiel, 2002, 11 pp.
14. A. Goldvard, L. Shvartsman, *Linear Algebra*, Collection of problems for teaching by means the Internet, ORT Braude College, Karmiel, 2001, 51 pp.
15. A. Goldvard, L. Shvartsman, *Two hundred and eighty seven problems in Linear Algebra*, Collection of problems in Linear Algebra, ORT Braude College, Karmiel, 2001, 58 pp.
16. A. Goldvard, L. Shvartsman, *Linear Algebra*, Collection of problems in Linear Algebra, ORT Braude College, Karmiel, 1999, 49 pp.
17. L. Shvartsman, *Euclidean Geometry*, "Oranim" School of Education, Kiryat Tivon, 1996, 48 pp.

18. L.V. Shvartsman, *Fourier transformation and equations of Mathematical Physics. Theory and problems*, Yaroslavl Polytechnic Institute , Yaroslavl, 1992, 30pp.