

CURRICULUM VITAE

of Anton SAVIN

Born July 29, 1975 in Moscow, USSR, Russian, married

Independent University of Moscow

Bolshoi Vlasevski Pereulok, 11, 119002 Moscow

RUSSIA

E-mail: antonsavin@mail.ru

Home address: Muranovskaja 7, apt. 64, 127349 Moscow

HIGHER EDUCATION

Moscow State University M.S. in Math. 1997

Moscow State University Cand.Sci.(PhD) in Math. 2000, PhD advisor Prof. B.Yu. Sternin

PROFESSIONAL EXPERIENCE

1. Junior Research Fellow, Moscow State University. Lectures and seminars in differential geometry; linear algebra; partial differential equations; analysis on manifolds. 2000-2002;
2. Research Fellow, Independent University of Moscow (lecture series “K-theory and the Atiyah–Singer index theorem”, “The Dirac operator”, “Elements of calculus of variations in the large”), 2002-present
3. Postdoc at Potsdam University in 2002–2004;
4. Reviewer for Mathematical Reviews, 2000-present

PROFESSIONAL SOCIETIES

Member of the American Mathematical Society, 2000-present.

TALKS AT CONFERENCES AND WORKSHOPS (over 40 talks, here selected list)

1. International Conference “Jean Leray 99” (Karlskrona, Sweden) September 1999;
2. Joint AMS-Scandinavian Math. Meeting “AMSSCAND 2000”, (Odense, Denmark) June 2000;
3. International Conference “Geometric Analysis” (Potsdam, Germany) October 2000;
4. International Conference “Topology, analysis and related topics”, Moscow, August 2001;
5. Satellite Conference “Differential Geometry and Global Analysis” (Tianjin, China) August 2002;
6. International Congress of Mathematicians, Beijing, China, August 2002;
7. International conference “Kolmogorov and contemporary mathematics”, Moscow, June 2003.
8. Intern. conf. “C*-algebras and elliptic theory”, Banach Center Bedlewo, Poland, February 2004;
9. Workshop and Spring School “Operator Algebras, Singularities, Deformation Quantisation”, Potsdam, Germany, March 2004;
10. Workshop “Index problems”, Institut Henri Poincare, Paris, France, April 2004;
11. Intern. conf. “Topology, analysis and applications to mathematical physics” Moscow, February 2005;
12. Joint International Meeting DMV-OMG-AMS, “Geometric Analysis”, Mainz, Germany, June 2005;
13. Workshop “Index problems”, Münster University, Germany, November 2005;
14. Intern. conf. “C*-algebras and elliptic theory II”, Banach Center Bedlewo, Poland, February 2006.

RESEARCH INTERESTS

Elliptic operators, K -theory, Noncommutative geometry, Dirac operators, C^* -algebras, stratified manifolds, index theory and its applications to differential geometry and topology

References

Monograph

- [1] V. Nazaikinskii, A. Savin, B.-W. Schulze, and B. Sternin. *Elliptic Theory on Singular Manifolds*. CRC-Press, Boca Raton, 2005.

Journal articles

- [2] A. Yu. Savin. Branching of terms for the one-dimensional Schroedinger equation. *Differ. Equations*, **33**, No. 8, 1997, 1055–1062.
- [3] A. Savin, B.-W. Schulze, and B. Sternin. On invariant index formulas for spectral boundary value problems. *Differentsial'nye uravnenija*, **35**, No. 5, 1999, 709–718.
- [4] A. Yu. Savin. On operators that allow the decomposition of index formulas for spectral boundary value problems. *Doklady Mathematics*, **60**, No. 2, 1999, 220–222.
- [5] A. Yu. Savin and B. Yu. Sternin. Elliptic operators in even subspaces. *Matem. sbornik*, **190**, No. 8, 1999, 125–160. English transl.: Sbornik: Mathematics **190**, N 8 (1999), p. 1195–1228; arXiv: math/9907027.
- [6] A. Yu. Savin and B. Yu. Sternin. Elliptic operators in odd subspaces. *Matem. sbornik*, **191**, No. 8, 2000, 89–112. English transl.: Sbornik: Mathematics **191**, N 8 (2000), arXiv: math/9907039.
- [7] A. Savin, B.-W. Schulze, and B. Sternin. Elliptic Operators in Subspaces and the Eta Invariant. *K-theory*, **27**, No. 3, 2002, 253–272.
- [8] A. Savin, B.-W. Schulze, and B. Sternin. On the homotopy classification of elliptic boundary value problems. In *Partial differential equations and spectral theory: PDE2000 Conference in Clausthal, Germany*, volume 126 of *Operator theory: advances and applications*, 2001, pages 299–306, Basel, Boston, Berlin. Birkhäuser.
- [9] A. Savin, B.-W. Schulze, and B. Sternin. *The Homotopy Classification and the Index of Boundary Value Problems for General Elliptic Operators*. Univ. Potsdam, Institut für Mathematik, Oktober 1999. Preprint N 99/20, arXiv: math/9911055.
- [10] A. Savin and B. Sternin. Subspaces defined by pseudodifferential projections and some of their applications. *Doklady RAN*, **61**, No. 2, 2000, 235–238.
- [11] A. Savin and B. Sternin. The eta-invariant and Pontryagin duality in K -theory. *Math. Notes*, **71**, No. 2, 2002, 245–261. arXiv: math/0006046.
- [12] A. Savin. *Elliptic Operators in Subspaces*. Moscow State University, Moscow, 2000. PhD thesis.
- [13] A. Savin, B.-W. Schulze, and B. Sternin. The η invariant and elliptic operators in subspaces. In *Jean Leray '99 Conference Proceedings*, volume 24 of *Math. Phys. Stud.*, 2003, pages 373–387, Dordrecht. Kluwer Acad. Publ.
- [14] A. Savin and B. Sternin. The eta invariant and parity conditions. *Adv. in Math.*, **182**, No. 2, 2004, 173–203.
- [15] A. Savin and B. Sternin. To the problem of homotopy classification of the elliptic boundary value problems. *Doklady Mathematics*, **63**, No. 2, 2001, 174–178.
- [16] A. Savin and B. Sternin. The eta-invariant and parity conditions. *Doklady RAN*, **63**, No. 2, 2001, 189–193.

- [17] A. Savin and B. Sternin. Boundary value problems on manifolds with fibered boundary. *Math. Nachr.*, **278**, No. 11, 2005, 1297–1317. arXiv: math.OA/0207179.
- [18] A. Savin and B. Sternin. Pseudodifferential subspaces and their applications in elliptic theory. Proceedings of Conference in Bedlewo (in print), 2005.
- [19] A. Savin and B. Sternin. Index defects in the theory of nonlocal boundary value problems and the η -invariant. *Sbornik: Mathematics*, **195**, No. 9, 2004. arXiv: math/0108107.
- [20] A. Savin and B. Sternin. Index defects in the theory of spectral boundary value problems. In *Aspects of Boundary Problems in Analysis and Geometry*, volume 151 of *Oper. Theory Adv. Appl. Advances in Partial Differential Equations*, 2004, pages 170–238, Basel–Boston–Berlin. Birkhäuser.
- [21] A. Savin. Index defects and η -invariants on manifolds with a covering on the boundary. In *ICM 2002, International Congress of Mathematicians. Abstracts of short communications and posters*, 2002, page 73, Beijing. Higher Education Press.
- [22] A. Yu. Savin and B. Yu. Sternin. Index for a class of nonlocal elliptic operators. In *Proceedings of Crimean Autumn Mathematical School 2003*, 2004.
- [23] V. Nazaikinskii, A. Savin, B.-W. Schulze, and B. Sternin. *Elliptic Theory on Manifolds with Nonisolated Singularities. II. Products in Elliptic Theory on Manifolds with Edges*. Univ. Potsdam, Institut für Mathematik, Potsdam, 2002. Preprint N 2002/15.
- [24] V. Nazaikinskii, A. Savin, B.-W. Schulze, and B. Sternin. *Elliptic Theory on Manifolds with Nonisolated Singularities. III. The Spectral Flow of Families of Conormal Symbols*. Univ. Potsdam, Institut für Mathematik, Potsdam, 2002. Preprint N 2002/20.
- [25] V. Nazaikinskii, A. Savin, and B. Sternin. On the definition of pseudodifferential operators on manifolds with singularities. *Russ. Acad. Sci. Doklady*, **69**, No. 1, 2004, 41–44.
- [26] V. Nazaikinskii, A. Savin, B.-W. Schulze, and B. Sternin. On the index of differential operators on manifolds with edges. *Russ. Acad. Sci. Doklady*, **69**, No. 1, 2004, 68–71.
- [27] V. Nazaikinskii, A. Savin, B.-W. Schulze, and B. Sternin. On the existence of elliptic problems on manifolds with edges. *Russ. Acad. Sci. Doklady*, **69**, No. 2, 2004, 231–234.
- [28] V. Nazaikinskii, A. Savin, B. Sternin, and B.-W. Schulze. On pseudodifferential operators on manifolds with edges. *Russ. Acad. Sci. Doklady*, **70**, No. 2, 2004, 739–742.
- [29] A. Savin. Elliptic operators on singular manifolds and K -homology. In *Proceedings of the conference “Geometry and topology of manifolds”*, 2003, pages 64–65, Krynica, Poland.
- [30] A. Savin. Elliptic Operators on Singular Manifolds and K -homology. *K-theory*, **34**, No. 1, 2005, 71–98.
- [31] V. Nazaikinskii, G. Rozenblioum, A. Savin, and B. Sternin. Guillemin Transform and Toeplitz Representations for Operators on Singular Manifolds. In *Spectral Geometry of Manifolds with Boundary*, volume 366 of *Contemp. Math.*, 2005, pages 281–306.
- [32] V. Nazaikinskii, A. Savin, B. Sternin, and B.-W. Schulze. Pseudodifferential operators on manifolds with singularities and localization. *Russ. Acad. Sci. Doklady*, **71**, No. 3, 2005, 457–460.
- [33] V. Nazaikinskii, A. Savin, B.-W. Schulze, and B. Sternin. On the index of differential operators on manifolds with edges. *Sbornik: Mathematics*, **196**, No. 9, 2005, 1271–1305.
- [34] V. Nazaikinskii, A. Savin, B.-W. Schulze, and B. Sternin. On the index of differential operators on manifolds with edges. *Contemp. Math.*, **391**, 2005, 289–296.

- [35] V. Nazaikinskii, A. Savin, B.-W. Schulze, and B. Sternin. *On the Homotopy Classification of Elliptic Operators on Manifolds with Edges*. Univ. Potsdam, Institut für Mathematik, Potsdam, 2004. Preprint N 2004/16, math.OA/0503694.
- [36] V. Nazaikinskii, A. Savin, and B. Sternin. Pseudodifferential operators on stratified manifolds I. *Differential Equations* (in print), 2005.
- [37] V. Nazaikinskii, A. Savin, and B. Sternin. Pseudodifferential operators on stratified manifolds II. *Differential Equations* (in print), 2005.
- [38] V. Nazaikinskii, A. Savin, and B. Sternin. On the homotopy classification of elliptic operators on stratified manifolds. *Dokladi: Mathematics*, **408**, No. 5, 2006.