

Victor NISTOR

(includes a list of publications)

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LANGUAGES:

Romanian (native), English, French, Russian (all four fluent). Five years of study of German.

EDUCATION:

Ph. D., University of California, Berkeley, 1990-91.

M. A., University of Bucharest, Romania, 1985-86.

B. A., University of Bucharest, Romania, 1981-85.

High School: Mathematical-Physics #1, specializing in Computer Science, 1976-80.

EXPERIENCE:

2013– Distinguished Professor of Mathematics, Université Lorraine, France
("Classe exceptionnelle" since September 2017).

2015–2017 Adjunct Professor, Pennsylvania State University.

1997–2015 Professor of Mathematics, Pennsylvania State University.

1994–1997 Associate Professor (tenured), Pennsylvania State University.

1993–1994 Assistant Professor, Pennsylvania State University.

1991–1995 Benjamin Peirce Lecturer-Assistant Professor, Harvard University.

1986–1991 Researcher, The Mathematical Institute of the Romanian Academy.

HONORS, AWARDS, AND PRIZES:

Sloan Fellow (USA), July 1995 to June 1997.

National Young Investigator Award (USA), August 1, 1994 to July 30, 1999.

First prize at four National and two International mathematical high school competitions (in 10th and 11th grade, in the 12th grade Romania did not participate). First prize at the Balkanic mathematical contest for college students.

Honorary member of the Mathematical Institute of the Romanian Academy and of the Penn State Institute for Gravity and the Cosmos.

Keynote speaker in one of the mini-symposia, the European Congress of Computational Mechanics, Paris, 2010.

Keynote speaker in one of the mini-symposia, US Natl. Cong. Comp. Mechanics, Raleigh, 2013.

RESEARCH INTERESTS.

Global Analysis and *Spectral Theory*, *Noncommutative Geometry*, and applications to *Partial Differential Equations (PDEs)*, *Mathematical Physics*, and *Analysis on singular and non-compact spaces*. Typically, in many of my recent papers, I used Lie algebras, Riemannian geometry, Operator Algebras, and Groupoids to obtain new results on PDEs on singular and non-compact spaces, which then I used to obtain applications to Partial Differential Equations and Numerical Methods (including computational finance).

VISITING POSITIONS:

June 94	Invited Professor, University of Marseille, Luminy, France.
May-July '97	Invited Professor, Heidelberg University, Germany.
March 1998	Invited Professor, Orsay University, France.
June 1999	Invited Professor, Institute Fourier, Grenoble, France.
July 1999	Invited Professor, Institute Desargues, Lyon, France.
Jan. '01	Invited Professor, Univ. Paul Sabatier, Toulouse, France.
Feb.-June '01	Visiting Scholar, Max Planck Institute for Mathematics, Germany.
June '04	Invited Professor, Institute Henri Poincaré, Paris.
May '05	Invited Professor, Nancy University.
June '05	Invited Professor, Clermont-Ferrant University.
March '06	Invited Fellow, Institute of Computational Sc. and Eng., Austin, Texas.
February '07	Invited Professor, Institute Henri Poincaré, Paris, France.
June-July '07	Visiting Scholar, Max Planck Institute for Mathematic, Bonn, Germany.
Juny '08	Invited Professor, University Clermont-Ferrant.
February '09	Invited Professor, University Toulouse.
March-June '09	Visiting Scholar, Max Planck Institute for Mathematics, Bonn, Germany.
June '10	Visiting Scholar, Math. Inst. Romanian Acad. (IMAR), Bucharest.
June '11	Visiting Scholar, Hausdorff Institute for Mathematics, Bonn, Germany.
July '11	Visiting Scholar, Math. Inst. Romanian Acad. (IMAR), Bucharest.
August '11	Rock Ethics Institute Fellow, Pennsylvania State University.
July '13	Visiting Professor, University Cergy-Pointoise, France.
September '14	Visiting Scholar, Max Planck Institute, Bonn.
May '18	Visiting Scholar, Max Planck Institute, Bonn.
March '19	Visiting Scholar, Max Planck Institute, Bonn.

GRANT ACTIVITY:

French National Research Agency (ANR, France), "Operator algebras and representation theory of Lie groups and groupoids (OpART)." October 2023 (for four years).

French National Research Agency (ANR, France), "Analysis on singular spaces and C^* -algebras (SINGSTAR)." October 2014 (for four years). Main PI.

NSF Grant DMS-1418799, title: "Higher order numerical methods for elliptic and parabolic problems," proposed for funding for \$270,000 and then withdrawn because I was on leave from Penn State.

NSF Grant DMS-1016556, title: "Numerical Treatment of Singularities and the Generalized Finite Element Method: Theory, Algorithms, and Applications." August 15, 2010 to July 31, 2014.

NSF Grant OCI 0749202, title: "COLL. RESEARCH: Multigrid QCD at the Petascale."

NSF Grant DMS 0713743, title: "Research Experience in Numerical Methods for Partial Differential Equations with Singularities," August 2007 to July 2010.

NSF Grant DMS 0555831, title: "Applications of Operator Algebras and Index Theory to Analysis on Singular Spaces," December 2006 to October 2009.

NSF Grant DMS 0209497, title: "Multiscale methods for partial differential equations," (co-PI), August 2002 to July '05.

NSF Grant DMS 0200808, title: "Global Methods in the analysis on singular spaces and partial differential equations," August 2002 to July '05.

NSF-France International Collaborative Grant, OISE 99-81251, title: “Index theorems, residues, eta invariants, and foliations,” July 2000 to June ’03.

NSF Grant DMS 991981, title: “Analysis on singular spaces,” August 1999 to July ’02.

NSF Young Investigator Award DMS-9457859, 1994-1999.

A grant to visit College de France, Paris, May 1994.

NSF Grant DMS 9203517, “Index theory and cyclic cohomology,” July ’92 to June ’95.

A grant to participate at ICM 1990 in Japan as a young mathematician.

SOFTWARE DEVELOPED

A FEM code in C for solving elliptic equations in the plane using graded meshes; together with Hengguang Li (available from my homepage).

SEMINARS ORGANIZED:

“Analysis seminar Metz-Nancy.” (2014-2017)

“Computational and Applied Mathematics.” (2011-13)

“Probability and Financial Mathematics seminar.” (2009-13)

“Working group in Financial Mathematics.” (2012-13)

“A student seminar on Partial Differential Equations (PDEs) and their applications.” (2003-05)

“Joint Altoona-University Park Interdisciplinary seminar on PDEs and their applications.(2005-09)”

CONFERENCES AND WORKSHOPS THAT I HELPED ORGANIZE:

- (1) International conference: Special section on “Integral operators and applications,” International Congress of Romanian Mathematicians, Pitești, Romania, June-July 2023.
- (2) International conference: Special section on “Analysis and applications,” Fifteenth French-Romanian Colloquium on Applied Mathematics, Toulouse, September 2022.
- (3) International conference: “Asymptotic and spectral analysis,” Oldenburg, September 2022.
- (4) International conference: “Geometry and Analysis on Non-Compact Manifolds,” CIRM, Marseille, April 2022.
- (5) International conference: Special section on “Layer potential and integral operators,” International Congress of Romanian Mathematicians, Galați, Romania, June-July 2019.
- (6) International conference: “Spectral theory and mathematical physics,” Metz, May 2017.
- (7) Conference: “PDE Days,” Metz, March 2017.
- (8) International conference: “Non-commutative geometry and applications,” Metz, November 2016.
- (9) International conference: “Singular days,” Nancy, June 2016.
- (10) International Conference “Financial and Actuarial Mathematics,” AIMS Senegal, Mbour, July 2016.
- (11) Workshop “Noncommutative geometry and spectral invariants,” Univ. of Quebec, Montreal, 06/2015.
- (12) Mini-symposium “Recent Advances in Numerical Approximation of Singular Solutions,” at the 8th International Congress on Industrial and Applied Mathematics, Beijing, China, 08/2015
- (13) Mini-symposium “Higher Order Generalized Finite Element Methods for Problems with Singularities,” at the joint 11th World Congress on Computational Mechanics, the 5th European Conference on Computational Methods, and the 6th European Conference on Computational Fluid Dynamics, Barcelona, Spain, 07/2014.
- (14) AMS Session “Partial differential equations, stochastic calculus, and financial mathematics,” Joint Meeting AMS–Romanian Mathematical Society, Alba Iulia, June 2013.
- (15) Mini-symposium “Stochastic Analysis and Degenerate PDEs,” SIAM Conference in Mathematical Finance, Minneapolis 2012.

- (16) Workshop on mathematical methods in financial risk management, Pennsylvania State University, May 9-10 2012.
- (17) Mini-symposium “Numerical Treatment of Singularities of PDEs,” US Natl. Congress Computational Mechanics in Minneapolis, July 2011.
- (18) Mini-symposium “Numerical treatment of singularities and GFEM”, European Congress of Computational Mechanics, Paris, May 2010.
- (19) AMS session “Financial Mathematics,” Pennsylvania State University, October 2009.
- (20) “Elliptic PDEs on Singular Domains: Computation and Theory,” a mini-symposium in the SIAM Conference on “Analysis of Partial Differential Equations,” December 2007.
- (21) “Finite Element Circus,” Penn State, November 2006.
- (22) Member of the Organizing Committee of the International conference “Partial differential equations on singular and non-compact manifolds,” Potsdam, August 2006.
- (23) Member of the Organizing Committee of the International conference “ C^* -algebras and index theory II,” Bedlewo, Poland, January 2006.
- (24) Joint Int. Meeting DMV-ÖMG-AMS, “Geometric analysis,” Mainz, June, 2005.
- (25) Member of the Organizing Committee of the International conference “ C^* -algebras and index theory,” Bedlewo, Poland, February 2004.
- (26) AMS session “Elliptic operators on non-compact manifolds,” Boston, October 2002.
- (27) Mini-workshop “Partial differential equations on non-compact manifolds,” Penn State, December 2002.
- (28) Joint Canad. Math. Soc.–AMS session “Non-commutative geometry,” Toronto, Sept. ’00.
- (29) AMS session “Operator Algebras and Non-commutative Geometry,” Penn State, Oct. ’98.
- (30) The workshop “Symplectic Geometry and Microlocal Analysis,” Penn State, April 1998.

EDITORIAL ACTIVITIES:

Results in Mathematics, Publisher: Springer Verlag.

Journal of Operator Theory, Romanian Institute of Mathematics.

Journal of Pseudodifferential Operators, Springer Verlag.

Central European Journal of Mathematics, Birkhauser (until 2015).

OTHER PROFESSIONAL ACTIVITIES:

Reviewer for Math Reviews and many mathematical journals Member of the NSF panels.

Member of the evaluation committee of the University of Western Ontario, 2002.

Member of numerous committees in the department (including: Promotion and Tenure, Graduate Studies, Undergraduate Studies, Policy, Graduate teaching assistants oversight).

Member of Graduate Exam Committees in several other departments, including: Economy, Education, Mechanical and Nuclear Engineering, Chemistry, Physics.

President of the HDR Committee for Jean-Marie Lescure, U. Clermont-Ferrand, 2014.

President of the Thesis Defense Committee for B. Andrysiak, Marseille U, 2019.

GRADUATE COURSES TAUGHT:

Partial Differential Equations; Evolution equations; Real Analysis; Algebraic Topology; Index theory; Cyclic homology; Scattering theory; Introduction to Applied Math; Introduction to Numerical Analysis; Numerical Methods for Partial Differential Equations.

GRADUATE STUDENTS:

- (1) Martin Bues, Ph.D. Harvard 1994 (joint with A. Jaffe),
- (2) Catarina Carvalho, Ph.D. Oxford 2003 (joint with U. Tilmann),
- (3) Shantanu Dave, Ph.D. 2005,

- (4) Dritan Muca, Masters 2005,
- (5) Hengguang Li, Ph.D. 2008 (joint with L. Zikatanov),
- (6) Wen Cheng, Ph.D. 2011 (joint with A. Mazzucato),
- (7) Yu Qiao, Ph.D. 2011 (joint with J. Roe),
- (8) Qingqin Qu, Ph.D. 2012 (joint with A. Mazzucato),
- (9) Carol Gaertner, Masters 2012
- (10) Xiao Han, Masters 2012 (joint with A. Mazzucato),
- (11) John Urschel, Masters 2013.
- (12) Chao Liang, Ph.D. 2014.
- (13) Siyan Zhang, Ph.D. 2016 (joint with A. Mazzucato).
- (14) Yajie Zhang, Ph.D. 2017 (joint with A. Mazzucato).
- (15) Jérémy Mougél (2019, Metz).
- (16) Rémi Côme (2020, Metz).
- (17) Hassan Mohsen (2022, Metz).
- (18) Boussena Kader (current, joint with R. Bunoiu).

Carvalho, Li, and Qiao are tenured now. Yajie Zhang is postdoc. Qu is teaching assistant. Côme, Mougél, Siyan Zhang, Cheng, Liang, and Han are working in the private sector. Urschel is pursuing a PhD now.

UNDERGRADUATE STUDENTS: Fara Delitsky, Anirban Roy, Carol Gaertner, Ignacio Sofo, Pranav Phalke, Matt Fennema, Luke Edwards, and Yunke Mai.

TER REPORTS

- Fadil and Straub, June 2021, “Brownian motion and the pricing of Financial Derivatives.”
- Benali and Damel, June 2022, “Brownian motion and the pricing of Financial Derivatives.”
- Mazouza et Meddah, June 2023, “Brownian motion and the pricing of Financial Derivatives.”
- Peyrouny and François, June 2023, “The Fourier transform and applications to Partial Differential Equations.”

Publications

(in inverse chronological order, except the preprints, which are at the end)

REFERENCES

- [1] A. Baldare, M. Benameur, and V. Nistor. Chern-Connes-Karoubi character isomorphisms and algebras of symbols of pseudodifferential operators. In *Cyclic cohomology at 40. Achievements and future prospects. Proceedings of the conference, virtual, Toronto, ON, Canada, September 27 – October 1, 2021*, pages 1–27. Providence, RI: American Mathematical Society (AMS), 2023.
- [2] B. Ammann, J. Mougél, and V. Nistor. A regularity result for the bound states of N -body Schrödinger operators: blow-ups and Lie manifolds. *Lett. Math. Phys.*, 113(1):53, 2023. Id/No 26.
- [3] Wen Cheng, A. Mazzucato, and V. Nistor. Approximate solutions to second-order parabolic equations: evolution systems and discretization. *Discrete Contin. Dyn. Syst., Ser. S*, 15(12):3571–3602, 2022.
- [4] H. Mohsen, S. Labrunie, and V. Nistor. Polynomial estimates for transmission problems on domains with flat boundary. *Tunis. J. Math.*, 4(4):755–777, 2022.
- [5] M. Kohr and V. Nistor. Sobolev spaces and ∇ -differential operators on manifolds. I: Basic properties and weighted spaces. *Ann. Global Anal. Geom.*, 61(4):721–758, 2022.
- [6] B. Ammann, J. Mougél, and V. Nistor. A comparison of the Georgescu and Vasy spaces associated to the N -body problems and applications. *Ann. Henri Poincaré*, 23(4):1141–1203, 2022.
- [7] A. Baldare, R. Côme, M. Lesch, and V. Nistor. Fredholm conditions for invariant operators: finite abelian groups and boundary value problems. *J. Oper. Theory*, 85(1):229–256, 2021.
- [8] A. Baldare, R. Côme, M. Lesch, and V. Nistor. Fredholm conditions and index for restrictions of invariant pseudodifferential operators to isotypical components. *Münster J. Math.*, 14(2):403–443, 2021.
- [9] A. Baldare, R. Côme, and V. Nistor. Fredholm conditions for operators invariant with respect to compact Lie group actions. *C. R., Math., Acad. Sci. Paris*, 359(9):1135–1143, 2021.

- [10] O. Grishenko, Xiao Han, and V. Nistor. A volatility-of-volatility expansion of the option prices in the SABR stochastic volatility model. *Int. J. Theor. Appl. Finance*, 23(3):49, 2020. Id/No 2050018.
- [11] M. Măntoiu and V. Nistor. Spectral theory in a twisted groupoid setting: spectral decompositions, localization and Fredholmness. *Münster J. Math.*, 13(1):145–196, 2020.
- [12] N. Große and V. Nistor. Uniform Shapiro-Lopatinski conditions and boundary value problems on manifolds with bounded geometry. *Potential Anal.*, 53(2):407–447, 2020.
- [13] B. Ammann, N. Grosse, and V. Nistor. The strong Legendre condition and the well-posedness of mixed Robin problems on manifolds with bounded geometry. *Rev. Roum. Math. Pures Appl.*, 64(2-3):85–111, 2019.
- [14] J. Faupin, M. Măntoiu, and V. Nistor. Editors’ preface to the topical issue: “spectral theory and applications to mathematical physics”. *Rev. Roumaine Math. Pures Appl.*, 64(2-3):82–83, 2019.
- [15] B. Ammann, N. Große, and V. Nistor. Analysis and boundary value problems on singular domains: An approach via bounded geometry. *C. R. Math. Acad. Sci. Paris*, 357(6):487–493, 2019.
- [16] B. Ammann, N. Große, and V. Nistor. Well-posedness of the Laplacian on manifolds with boundary and bounded geometry. *Math. Nachr.*, 292(6):1213–1237, 2019.
- [17] V. Nistor. Desingularization of Lie groupoids and pseudodifferential operators on singular spaces. *Comm. Anal. Geom.*, 27(1):161–209, 2019.
- [18] S. Zhang, A. Mazzucato, and V. Nistor. Semi-groups and the mean reverting SABR stochastic volatility model. *North-West. Eur. J. Math.*, 4:119–156, i, 2018.
- [19] C. Carvalho, V. Nistor, and Yu Qiao. Fredholm conditions on non-compact manifolds: theory and examples. In *Operator theory, operator algebras, and matrix theory*, volume 267 of *Oper. Theory Adv. Appl.*, pages 79–122. Birkhäuser/Springer, Cham, 2018.
- [20] V. Nistor and N. Prudhon. Exhaustive families of representations and spectra of pseudodifferential operators. *J. Operator Theory*, 78(2):247–279, 2017.
- [21] C. Băcuță, Hengguang Li, and V. Nistor. Differential operators on domains with conical points: precise uniform regularity estimates. *Rev. Roumaine Math. Pures Appl.*, 62(3):383–411, 2017.
- [22] C. Carvalho, V. Nistor, and Y. Qiao. Fredholm criteria for pseudodifferential operators and induced representations of groupoid algebras. *Electron. Res. Announc. Math. Sci.*, 24:68–77, 2017.
- [23] V. Georgescu and V. Nistor. On the essential spectrum of N -body Hamiltonians with asymptotically homogeneous interactions. *J. Operator Theory*, 77(2):333–376, 2017.
- [24] J. Mougél, V. Nistor, and N. Prudhon. A refined HVZ-theorem for asymptotically homogeneous interactions and finitely many collision planes. *Rev. Roumaine Math. Pures Appl.*, 62(1):287–308, 2017.
- [25] J. Brodzki, S. Dave, and V. Nistor. The periodic cyclic homology of crossed products of finite type algebras. *Adv. Math.*, 306:494–523, 2017.
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- [27] J. Adler and V. Nistor. Graded mesh approximation in weighted Sobolev spaces and elliptic equations in 2D. *Math. Comp.*, 84(295):2191–2220, 2015.
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- [41] Yu Qiao and V. Nistor. Single and double layer potentials on domains with conical points I: Straight cones. *Integral Equations Operator Theory*, 72(3):419–448, 2012.

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- [43] W. Cheng, N. Costanzino, J. Liechty, A. Mazzucato, and V. Nistor. Closed-form asymptotics and numerical approximations of 1D parabolic equations with applications to option pricing. *SIAM J. Financial Math.*, 2(1):901–934, 2011.
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- [47] R. Constantinescu, N Costanzino, A. Mazzucato, and V. Nistor. Approximate solutions to second order parabolic equations. I: analytic estimates. *J. Math. Phys.*, 51(10):103502, 26, 2010.
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Preprints and papers accepted for publication

- [110] R. Melrose and V. Nistor. Homology of pseudodifferential operators I^* (manifolds with boundary). <http://arxiv.org/abs/funct-an/9606005>.
- [111] W. Cheng, A. Mazzucato, and V. Nistor. Approximate solutions to second order parabolic equations II: time-dependent coefficients. Preprint 2017.1.
- [112] N. Grosse, K. Mirela, and V. Nistor. The l_2 -unique continuation property on manifolds with bounded geometry and the deformation operator. ArXiv preprint, 2023.
- [113] M. Kohr, V. Nistor, and W.L. Wendland. Layer potentials and essentially translation invariant pseudodifferential operators on manifolds with cylindrical ends. ArXiv:2308.06308, 2023.
- [114] M. Kohr, V. Nistor, and W.L. Wendland. The Stokes operator on manifolds with cylindrical ends. Submitted, 2023.

[115] I. Beschastnyi, C. Carvalho, V. Nistor, and Y. Qiao. Analysis on noncompact manifolds and index theory: Fredholm conditions and pseudodifferential operators. ArXiv preprint, to appear, 2023.

Note: All publications above were (or will be) refereed.

Speaking engagements

- (1) September 1986, Operator Theory and Applications, Bucharest Romania, “The stable rank of a certain class of algebras.”
- (2) June 1988, Operator Theory and Applications, Timisoara Romania, “Fields of AF-algebras,” and “ C^* -algebras that are not groupoid algebras.”
- (3) July 1989, Operator Algebras and Applications, Craiova Romania, “Cyclic cohomology of crossed products.”
- (4) June 1990, College de France, “Cyclic cohomology of crossed-products.”
- (5) June, The Functional Analysis seminar, Orleans (France), “A bivariant Chern-Connes character.”
- (6) August, Special section of the International Congress of Mathematicians, (algebraic K -theory, A. Bak organizer), Invited talk: “Cyclic cohomology of crossed products.”
- (7) October, The Functional Analysis seminar, UC Berkeley, “A bivariant Chern-Connes character.”
- (8) December, The Functional Analysis seminar, University of Maryland, “A bivariant Chern-Connes character.”
- (9) December, The Geometry seminar, Penn State University, “A bivariant Chern-Connes character.”
- (10) January 1991, Special seminars, Ohio State University, “Cyclic cohomology of crossed products,” and “A bivariant Chern-Connes character.”
- (11) January, AMS Meeting at San Francisco, K -theory section, “A bivariant Chern-Connes character.”
- (12) April, Special seminar, Harvard University, “The bivariant character and index theory.”
- (13) December, Mathematical Physics family meeting, Harvard University, “Higher McKean-Singer index formulae.”
- (14) May 1992, Mathematical Physics family meeting at Harvard University, “Quantization and pseudoconvex domains.”
- (15) May, Operator Theory Conference, Iowa (GPOTS), “Cyclic cohomology of crossed products by algebraic groups.”
- (16) August, Special seminar, UC Berkeley, “Higher McKean-Singer index formulae.”
- (17) October, Colloquium, University of Pennsylvania, “Cyclic cohomology and index theory.”
- (18) December, Mathematical Physics family meeting, Harvard University, “Cyclic cohomology and orbifolds.”
- (19) May 1993, Geometry seminar, Penn State University “Cyclic cohomology of foliations.”
- (20) May, Functional Analysis seminar, IUPUI (Indiana), “Cyclic cohomology of foliations.”
- (21) May, Functional Analysis seminar, Wabash, “Cyclic cohomology and Index theory.”
- (22) October, AMS Meeting, College Station, Texas, “Cyclic cohomology of groupoids.”
- (23) March 1994, Functional Analysis seminar, UC Berkeley, “Axiomatization of Index Theory.”
- (24) March, Special Seminar, Ohio State University, “Axiomatization of Index Theory.”
- (25) May, College de France, Paris, “Properties of the boundary map in cyclic homology.”
- (26) June, Strassbourg University, France, “Properties of the boundary map in cyclic homology.”
- (27) June, Marseille University, Luminy, France, A series of lectures on cyclic homology.

- (28) October, East coast operator conference, Poughkeepsie “Axiomatization of Index Theory.”
- (29) January 1995, AMS Meeting, San Francisco, Index theory section, “The index of operators on foliated bundles.”
- (30) May, Mathematical-physics seminar, Harvard University, “Invariants of elliptic operators.”
- (31) June, Conference on non-commutative geometry, Waterloo, Canada, “The index of operators on foliated bundles.”
- (32) September, Groupoid conference, Boulder Colorado, “Cyclic cohomology of etale groupoids.”
- (33) October, Functional analysis seminar, U. Penn, “An \mathbb{R}^k equivariant index theorem.”
- (34) December, PDE seminar, MIT, “An \mathbb{R}^k equivariant index theorem.”
- (35) January 1996, AMS Meeting, Orlando Florida, the section Index theory on noncompact manifolds, “An \mathbb{R}^k equivariant index theorem”
- (36) May, Operator Theory Conference, Arizona State University (GPOTS), “ C^* -algebras of pseudodifferential operators.”
- (37) July, Joint SIAM-AMS-MAA Conference on Quantization, Mount Holyoke College, “Pseudodifferential Operators on Groupoids and Quantization.”
- (38) October, Colloquium, Wayne State University, “Homology of pseudodifferential operators.”
- (39) November, Conference on Analysis on Singular Spaces, CIRM Marseille, France “Traces and index theorems.”
- (40) January 1997, AMS Meeting, San Diego, the section on Noncommutative Geometry and Applications, “Homology of pseudodifferential operators.”
- (41) February, Analysis Seminar, University of Illinois at Chicago, “Invariants of pseudodifferential operators.”
- (42) March, PDE Seminar, MIT, “Pseudodifferential operators on groupoids.”
- (43) April, AMS Session *Groupoids and their applications*, “Pseudodifferential operators on groupoids.”
- (44) April, Colloquium University of Illinois, Urbana Champaign, “Fredholm operators on manifolds with corners.”
- (45) April, Functional Analysis seminar, Ohio State University, “Fredholm operators on manifolds with corners.”
- (46) May-July, A series of talks as invited professor, Heidelberg University, Germany.
- (47) May, College de France, “Fredholm operators on manifolds with corners.”
- (48) June, University of Mainz, Germany, “Higher index theorems and non-commutative geometry,”
- (49) June, Conference on *Analysis on Singular Spaces*, Felix de Guixols, Spain, “Fredholm operators on manifolds with corners.”
- (50) January 1998, Special seminar, Berkeley, “Index theory and non-commutative geometry.”
- (51) February, Colloquium, Indiana University at Indianapolis (IUPUI), “The dual of a p -adic group from the point of view of algebraic topology.”
- (52) February, Colloquium, Purdue University, “The dual of a p -adic group from the point of view of algebraic topology.”
- (53) March, Orsay University, Paris, “Index theory and non-commutative geometry” and “Manifolds with corners and K -theory.”
- (54) August, Operator Theory and Non-commutative Geometry Conference, Copenhagen, Denmark, “ C^* -algebras, cyclic homology, and p -adic groups.”
- (55) August, Non-commutative Geometry Conference, Oberwolfach, Germany, “Cyclic homology and p -adic groups.”
- (56) August, Partial Differential Equations Conference, Potsdam, Germany, “Pseudodifferential operators on singular spaces.”
- (57) February 1999, Functional Analysis seminar, Waterloo University, “Pseudodifferential operators and the APS boundary conditions.”

- (58) February, Colloquium Waterloo University, “Non-commutative Geometry.”
- (59) March, Colloquium University of Iowa, “Non-commutative Geometry.”
- (60) July, Colloquium, Muenster University, Germany, “An Algebraic Topology approach to the dual of p -adic groups.”
- (61) July-August, Grenoble and Lyon, two series of talks on my work on index theory.
- (62) October, AMS Meeting Rhode Island, “An index theorem for families of elliptic operators invariant with respect to a bundle of Lie groups.”
- (63) October, AMS Meeting Austin Texas, “An index theorem for families of elliptic operators invariant with respect to a bundle of Lie groups.”
- (64) January 2000, Conference on L^2 -methods in geometry, Sarasota, Florida, “Operators invariant with respect to a bundle of Lie groups.”
- (65) March, Colloquium IUPUI (Indiana), “Elliptic theory on non-compact manifolds.”
- (66) March, Conference Oberwolfach, Germany, “The cyclic homology of Hecke algebras.”
- (67) April, Colloquium Ann Arbor, “Elliptic theory on non-compact manifolds.”
- (68) May, Main speaker GPOTS, Puerto Rico, “A C^* -approach to Elliptic theory on non-compact manifolds.”
- (69) June, Main speaker Canadian Operator Theory Meeting, Toronto, Canada, “A C^* -approach to Elliptic theory on non-compact manifolds.”
- (70) July, Conference Oberwolfach, Germany, “Dirac operators and singular spaces.”
- (71) July, Seminar Institute Desargues, Lyon, France, “Groupoids and the integration of Lie algebroids.”
- (72) July, London Math. Soc. conference, Durham, England, “Homology of Hecke algebras.”
- (73) September, AMS Meeting *Operator Algebras*, Toronto, Canada, “Homology of Hecke algebras.”
- (74) October, Geometric Analysis meeting, Potsdam, Germany, “Some results on pseudodifferential operators and groupoids.”
- (75) October, Colloquium, Kansas State University, “Elliptic theory on non-compact manifolds.”
- (76) October, Colloquium, University of Texas at Dallas, “Elliptic theory on non-compact manifolds.”
- (77) October, Colloquium, University of North Texas, “Elliptic theory on non-compact manifolds.”
- (78) December, Moscow State University, Russia, “Pseudodifferential operators and groupoids.”
- (79) January 2001, Geometry seminar, University of Bonn, “Elliptic theory on non-compact manifolds and the Dirac operator.”
- (80) January, K -Theory seminar Paris VII, “Cyclic homology of Iwahori-Hecke algebras.”
- (81) January, Seminar Max Planck Institute, “Cyclic homology of Iwahori-Hecke algebras.”
- (82) February, Operator algebras seminar, Toulouse University, France, “Elliptic theory on non-compact manifolds.”
- (83) February, Potsdam, Germany, A series of lectures on Hochschild and cyclic homology.
- (84) March, Utrecht, Holland, “Groupoids, pseudodifferential operators, and quantization.”
- (85) March, Moscow State University, “An index theorem for manifolds with boundary.”
- (86) April, Colloquium, Hamburg University, “Fredholm operators on non-compact manifolds.”
- (87) April, Geometry seminar, Hamburg University, “Pseudodifferential operators and groupoids.”
- (88) April, Colloquium, Muenster University, “Homology of Hecke algebras.”
- (89) April, Colloquium, University of Bonn, “An invitation to Non-commutative geometry.”
- (90) May, Colloquium, University of Mainz, “Fredholm operators on non-compact manifolds.”
- (91) June, Analysis seminar, Toulouse, “Cyclic homology of crossed products.”
- (92) June, Analysis seminar, Paris, “Fredholm operators and groupoids.”
- (93) June, Topology seminar, Oxford, “On the spectrum of the Laplace operator.”
- (94) November, Colloquium, Temple university, “Analysis on a class of non-compact manifolds.”
- (95) December, Geometry seminar, Northeastern Univ., “Riemannian manifolds with a uniform structure at infinity.”
- (96) May 2002, *Int. Conf. on Clifford algebras and applications*, Cookeville, “Analysis on manifolds with a Lie structure at infinity.”

- (97) June, AMS Session *Microlocal Analysis and applications to PDEs*, Pisa, Italy, “The method of boundary layer potentials for manifolds with cylindrical ends.”
- (98) August, The conference *Frontier of Non Commutative Analysis and Mathematical Quantum Theory*, Fukuoka, Japan, “A C^* -algebra approach to analysis on non-compact manifolds.”
- (99) October, AMS Session *Harmonic analysis*, Madison, Wisconsin, “Analysis on manifolds with a Lie structure at infinity.”
- (100) November, AMS Session *Harmonic analysis and function spaces*, Orlando, Florida, “Sobolev spaces on manifolds with a Lie structure at infinity.”
- (101) November, *North British Analysis Seminar*, Glasgow, England, “Two lectures on manifolds with a Lie structure at infinity.”
- (102) November, *Analysis seminar*, Princeton Univ., “Analysis on manifolds with a Lie structure at infinity.”
- (103) November, *Special seminar*, E. Schrödinger Institute for Mathematical Physics, Vienna, “Analysis on manifolds with a Lie structure at infinity.”

- (104) January 2003, *Special working seminar*, Moscow State Univ., “Analysis on manifolds with a Lie structure at infinity.”
- (105) January, *Oberwolfach mini-workshop*, “Analysis on manifolds with a Lie structure at infinity.”
- (106) July, *Conference on Topology and its applications*, the section on applications of groupoids to PDEs, “Groupoids and manifolds with a Lie structure at infinity.”
- (107) August, *Conference on spectral methods*, Denmark, “Analysis on manifolds with a Lie structure at infinity.”
- (108) August, *Noncommutative geometry and Number Theory*, Max Planck Institute, Bonn, Germany, “Homology of convolution algebras of p -adic groups and Iwahori-Hecke algebras.”
- (109) September, *Analysis seminar*, Cornell University, “Singular integral operators on non-compact manifolds and analysis on polyhedral domains.”
- (110) October, AMS Meeting, Binghampton, The section on *boundary value problems on singular spaces*, “Boundary value problems on manifolds with cylindrical ends.”
- (111) November, *Finite element circus*, Cornell U., “Sobolev spaces with weights and an optimal rate of convergence FEM on polygons.”
- (112) December, *PDE Seminar*, UC Berkeley, “Singular integral operators on non-compact manifolds and analysis on polyhedral domains.”

- (113) June 2004, Finite Element Circus, “Interior regularity for the Generalized Finite Element Method.”
- (114) June *Analysis seminar*, Toulouse Univ., “Analysis on polyhedral domains and groupoid algebras.”
- (115) June, *Sophus Lie seminar*, Metz, France, “Applications of the integration of Lie groupoids to analysis on non-compact manifolds.”
- (116) June, *Series of talks at Institute Henri Poincaré*, Paris, “K-theory and cyclic homology.”
- (117) July, *Conference on non-commutative geometry*, Paris, “Homology and higher eta invariants.”
- (118) September, *Wabash Conference (Indianapolis)*, “Analysis on polyhedral domains and C^* -algebras.”
- (119) September, *Colloquium, Purdue U.*, “Analysis on polyhedral domains.”
- (120) November, *Analysis Seminar*, U. Delaware, “Analysis on polyhedral domains.”
- (121) December, *Colloquium, Vanderbilt. U.*, “Analysis on polyhedral domains.”

- (122) March 2005, NSF Conference on meshfree numerical methods, U. Maryland, “Interior regularity for the Generalized Finite Element Method.”
- (123) May, *Analysis Seminar*, Nancy, “Analysis on non-compact manifolds.”
- (124) May, *Conference on Clifford algebras*, Toulouse, “The spectrum of the Dirac operator on manifolds with polycylindrical ends.”
- (125) June, *Operator algebras Seminar*, Clermont-Ferrant, “Index theory and boundary value problems.”
- (126) July, *International Congress on Computational Mechanics*, Austin, Texas, (the section on “Meshless methods”), “Interior regularity for the Generalized Finite Element Method.”

- (127) October, *Finite Element Circus*, Rutgers U., “Enforcing Dirichlet boundary conditions in the Generalized Finite Element Method.”
- (128) December, *Colloquium*, Arizona, “Elliptic operators on singular spaces.”
- (129) December, *Analysis Seminar*, Arizona, “Index theory and layer potentials for polyhedral domains.”
- (130) March 2006, *Quasi-optimal meshes in three dimensions*, Finite Element Circus, UM Baltimore campus.
- (131) May, *Quasi-optimal meshes in three dimensions*, Analysis Seminar, U. Delaware.
- (132) November, *Computational Challenges in three dimensions*, Colloquium, PSU Altoona.
- (133) November, *Computational Challenges in three dimensions*, Colloquium, Syracuse Univ.
- (134) February 2007, A 10 hour sequence of presentations at Institute Henri Poincare entitled *Analysis and index theory on singular spaces: a groupoid approach*
- (135) February 22, *Analysis on Lie Manifolds and on Polyhedral Domains*, Analysis seminar, Mainz University.
- (136) February 26, *Regularity for polyhedral domains and quasi-optimal rates of convergence in 3D*, Applied Mathematics seminar, Nancy University.
- (137) February 27, *Interior numerical approximation of boundary value problems with a distributional data using the GFEM*, Numerical Analysis seminar, Rennes University.
- (138) February 28, *A topological index theorem for manifolds with corners*, Conference on applications of groupoids at IHP.
- (139) March 6, *Lie Manifolds, Numerical Methods, and Non-commutative geometry*, Number Theory seminar, University of Amsterdam.
- (140) April, *Graded meshes in three dimensions*, Fifth Singular Days, Luminy, France.
- (141) June, *Schrödinger operators and Lie manifolds*, Analysis seminar, University of Bonn.
- (142) June, *The boundary map in cyclic homology*, Global analysis seminar, Max Planck Institute for Mathematics, Bonn.
- (143) June, *Schrödinger operators and Lie manifolds*, Analysis seminar, University of Hanover.
- (144) July, *A treatment of Dirichlet boundary conditions in GFEM*, International Congress of Computational Mechanics, San Francisco.
- (145) October, *Numerical methods for Schrödinger operators with centrifugal potentials*, Finite Element Circus, Cornell University.
- (146) February 2008, *Analysis of Schrödinger operators with periodic potentials*, Analysis seminar, Cornell University.
- (147) March, *Quasi-optimal rates of convergence for transmission problems*, Finite Element Circus, Baton Rouge.
- (148) April, *Analysis of Schrödinger operators with periodic potentials*, Analysis seminar, University of Illinois at Urbana-Champaign.
- (149) April, *Quasi-optimal rates of convergence on polyhedral domains in 3D*, AMS Meeting, Bloomington, Indiana.
- (150) July, *Low regularity Dirichlet boundary value problems and GFEM*, International Congress of Mechanics, Venice, Italy.
- (151) December, *Analysis of Schrödinger operators with periodic potentials*, Analysis seminar, University of Delaware.
- (152) January 2009, Toulouse, *Applications of groupoids to analysis*, Analysis seminar.
- (153) March, Regensburg, Sequence of lectures on boundary value problems.
- (154) April, University of Vienna, *Analysis of Schrödinger operators with periodic potentials*, Colloquium.
- (155) April, Max Planck Institute for Mathematics, *Applications of groupoids to analysis*, Mathematical Physics seminar.
- (156) May, Bonn, *Operators on singular spaces*, Analysis seminar.
- (157) June, Hausdorff Center, *A topological index theorem for manifolds with corners*, Conference in honor of Henri Moscovici.

- (158) July, Ohio, *Numerical treatment of low regularity boundary conditions in GFEM*, section of the National Congress of Computational Mechanics.
- (159) February 2010, Probability and Mathematical Finance seminar, Rutgers Univ., *Asymptotic solutions of parabolic equations and applications to Stochastic Volatility models*.
- (160) March, Risk Seminar, Statistics Dept. Columbia Univ., *Asymptotic solutions of parabolic equations and applications to Stochastic Volatility models*.
- (161) April, Brown Univ., *GFEM for transmission problems*, Finite Element Circus.
- (162) May, European Congr. Comp. Mech., Paris, Keynote speaker, *GFEM for transmission problems*.
- (163) May, Math. Fin. seminar, ITH Zurich, *Asymptotic solutions of parabolic equations and applications to Stochastic Volatility models*.
- (164) May, IMAR Romania, *Analysis on Lie manifolds*.
- (165) December, UCLA Analysis seminar, *Regularity of eigenvalues of Schrödinger operators*.
- (166) December, Cergy Mathematical-Physics seminar, *Regularity of eigenvalues of Schrödinger operators*.
- (167) April 2011, Probability and Mathematical Finance seminar, Rutgers Univ., *Lie manifolds and applications to Stochastic Volatility models*
- (168) May, FEM Circus and Rodeo, Paris, *On some meshes in three dimensions*.
- (169) June, Conf. of Romanian Mathematicians, Brasov, *Anisotropic regularity and optimal rates of convergence on three dimensional polyhedral domains*.
- (170) October, International Conference on Meshless methods, Bonn, *Quasi-optimal rates of convergence for GFEM on polygons*.
- (171) December, Colloquium, Wayne State Univ, *Boundary value problems on polyhedral domains, index theory and applications to numerical methods*.
- (172) December, Stratified Spaces: Joining Analysis, Topology and Geometry, Oberwolfach Conference, *Stratified spaces, Lie manifolds, and the well-posedness of Laplace's equation*.
- (173) December, Analysis and Geometry seminar, Regensburg, *Dyson series and short time asymptotics for the Green function of stochastic volatility models*.
- (174) December, Analysis and Geometry seminar, Regensburg, *Introduction to Lie manifolds*.
- (175) March 2012, Analysis seminar, Cergy-Pointoise, France, *Analysis on non-compact manifolds*.
- (176) March, Analysis seminar, Delaware, *Boundary value problems on polyhedral domains and applications to numerical methods*.
- (177) April, FEM Circus, *Interface problems on polygonal domains and graded meshes*.
- (178) May, Applied Math. Colloquium, Zurich, *Boundary value problems on polyhedral domains and applications to numerical methods*.
- (179) June, A sequence of lectures on numerical methods for PDEs and applications to Financial Mathematics, IMAR, Bucharest, Romania.
- (180) June, Plenary speaker, Numerical Analysis conference, Bulgaria, *Boundary value problems on polyhedral domains and applications to numerical methods*.
- (181) July, SIAM Conference on Financial Mathematics, *Approximate Solutions to 2nd Parabolic Equations with Time-dependent Coefficients* (section organizer).
- (182) August, Numerical Analysis seminar, Tufts, *Boundary value problems on polyhedral domains and applications to numerical methods*.
- (183) September, ECCOMAS Conference, Vienna, *Anisotropic mesh refinement and quasi-optimal rates of convergence in 3D*.
- (184) October, Finite Element Circus, Pittsburg, *A nonconforming GFEM approximation for elliptic problems*.

- (185) February, 2013, Analysis seminar, Princeton, *Analysis and Partial Differential Equations on Polyhedral Domains*.
- (186) March, Applied Mathematics Colloquium, Zurich, *High order Galerkin approximations for parametric elliptic PDEs on polyhedral domains*.
- (187) March, Analysis seminar, Toulouse, *Geometry, Partial Differential Equations, and Numerical methods in polyhedral domains*.
- (188) May, DelMar numerics day, Maryland, *High order Galerkin approximations for parametric elliptic PDEs on polyhedral domains*.
- (189) May, Semester in Quantum Mechanics, Institute Henri Poincare, Paris, *A regularity result for the eigenfunctions of the n -electron Schrödinger operator*.
- (190) June, MAFELAP, Uxbridge, UK, *High order Finite Element method for Schrödinger operators with inverse square potentials*.
- (191) June, Joint AMS-Romanian Math. Soc, Alba Iulia, *Optimal convergence rates for the Finite Element Method on three dimensional polyhedral domains*.
- (192) June, Joint AMS-Romanian Math. Soc, Alba Iulia, *Short time asymptotics of Green functions and option pricing*.
- (193) July, US Natl. Cong. Comp. Mechanics, Keynote speaker, *Optimal rates of convergence using grading in the Generalized Finite Element Method*.
- (194) September, Analysis seminar, Nancy, *Geometry, Partial Differential Equations, and Numerical methods in polyhedral domains*.
- (195) November, Financial Mathematics, Rutgers, *Small parameter asymptotics, stochastic volatility models, and option pricing*.
- (196) November, Analysis seminar, Texas A& M, *Boundary value problems on polyhedral domains and applications to optimal convergence rates for FEM*.
- (197) November, Analysis seminar, Metz, *Analysis and Partial Differential Equations in polyhedral domains*.
- (198) December, Conference GDR, Caen, France, *Analysis on singular spaces and C^* -algebras*.
- (199) February, 2014, Conference SL2R, *Analysis on Lie manifolds*.
- (200) June, sequence of lectures in Frescatti, Italy, on *Analysis on singular spaces, Lie manifolds, and non-commutative geometry*.
- (201) October, Colloquium Hanover, *Analysis on Lie manifolds and boundary value problems*.
- (202) October, Colloquium Goettingen, *Analysis on Lie manifolds and index theory*.
- (203) November, Analysis seminar, Paris 7, *Lie manifolds, Dyson series, and stochastic volatility models*.
- (204) May, 2015, Colloquium Saarbruecken, *An approach to analysis on non-compact and singular spaces using Lie algebras of vector fields*
- (205) May, Conf. on Noncommutative methods in Topology and Geometry, Lyon, *Analysis and index theory on non-compact spaces: operator algebras, groupoids, and applications*.
- (206) July, Congress of Romanian Mathematicians, Iasi, *On the essential spectrum of Hamiltonians with asymptotically homogeneous interactions*.
- (207) November, CIRM Conference on Noncommutative Geometry, *Representations of groupoid C^* -algebras and invertibility*.
- (208) November, Working seminar in Operator algebras and mathematical physics, Metz, *Groupoids, the Effros-Hahn conjecture, and Fredholm conditions*.
- (209) December, GDR “Arbre de Noël” meeting, Montpellier, *Representations of groupoid C^* -algebras and invertibility*.
- (210) April, 2016, Analysis seminar Muenster University, Germany, “Fredholm conditions for geometric operators and representations of groupoid algebras.”

- (211) April, Colloquium Université de Rennes, “Analysis on singular spaces: connections with operator algebras and geometry.”
- (212) June, Symplectic geometry seminar IHP, Paris, “Desingularization of groupoids (Éclatement des groupoïdes).”
- (213) June, Conference spectral theory and mathematical physics, Cergy-Pontoise, France, “Cross-product algebras and essential spectra: applications to the N -body problem.”
- (214) June, Singular days conference, Nancy, “Uniform estimates for families of operators on polygonal domains.”
- (215) July, Operator theory and operator algebras conference, Lisbon, Portugal, “Groupoid algebras and Fredholm conditions for geometric operators.”
- (216) October, Conference on analysis (in honor of Elmar Schrohe), Hannover, Germany, “Groupoids, pseudo-differential operators, and Fredholm conditions.”
- (217) November, Colloquium, Luxembourg City, Luxembourg, “Analysis on singular and non-compact spaces and Lie algebroids.”
- (218) December, Colloquium, Freiburg, Germany, “Analysis on singular and non-compact spaces and Lie algebroids.”
- (219) February, 2017, Analysis seminar Regensburg University, Germany, “An introduction to regularity on polyhedral domains.”
- (220) Analysis conference, Potsdam, Germany, “Fredholm conditions for generalized ‘edge’ calculi.”
- (221) March, PDEs conference, Metz, France, “Approximate Solutions to 2nd Order Parabolic Equations.”
- (222) July, Monthly seminar presentation, IMAR, Romania, “Analysis on singular and non-compact spaces.”
- (223) September, Trier, “Fredholm operators on non-compact manifolds,” Conference in Asymptotic analysis and Spectral Theory.
- (224) October, Bordeaux, “Analysis on non-compact manifolds,” Conference in Analysis.
- (225) October, Lille, “Fredholm operators on non-compact manifolds,” Analysis seminar.
- (226) November, Metz, “Lie algebroids and Lie manifolds,” conference on singular foliations.
- (227) February, 2018, Conference Jeju Island on layer potentials, S. Korea, “Fredholm conditions for pseudo-differential operators.”
- (228) February, Geometric and singular analysis conference, Potsdam, Germany, “Fredholm conditions for pseudodifferential operators.”
- (229) May, Analysis seminar, Bonn, Germany, “Fredholm conditions for pseudodifferential operators.”
- (230) June, Seminar U. Cluj, “The Dirichlet problem on polyhedral domains,” (talk delivered in Romanian).
- (231) September, Seminar U. Freiburg, “Manifolds with bounded geometry and a uniform Shapiro-Lopatinski condition.”
- (232) February, 2019, Potsdam, “Spaces with ‘oscillating singularities’ after Schulze and their relation to bounded geometry.”
- (233) March, SL2R conference Metz, “Opérateurs elliptiques et groupes” (“Elliptic operators and groups”).
- (234) April, U. Bonn, “An introduction to Lie groupoids and Lie algebroids.”
- (235) April, U. Oldenburg, “Numerical Analysis and Index Theory.”
- (236) April, Analysis Seminar Metz, “Group Actions and essential spectra of operators.”
- (237) May, Northwestern U., Chicago, “Relations between some results of Feigin-Tsygan, delocalized equivariant infinitesimal cohomology, and the cross-products of finite type algebras.”
- (238) May, Cortona, Italy, “Singular manifolds vs Amann triples.”
- (239) June, Hausdorff Colloquium, Bonn, “Lie groups and spectral theory on singular and noncompact spaces.”
- (240) July, Galati, Romania, “Lie manifolds and analysis on singular spaces.”
- (241) October, IMAR Bucuresti, “Opérateurs elliptiques et groupes” (“Elliptic operators and groups”).
- (242) November, CIRM, Marseille, “Algebroids: connections to geometry and analysis.”

(243) January, 2020, Reims U., France, “Opérateurs elliptiques et groupes” (“Elliptic operators and groups”)

Several invitations to deliver talks were cancelled in 2020 due to Covid-19. All the talks in 2021 were by visio, as well as some in 2022 and 2023.

(244) February, 2021,

(245) October, Conference: Differential Equations, Mathematical Modeling, and computational algorithms, Belgorod, Russia, “On some results of Kondratiev and extensions and applications to singular spaces and numerical methods.”

(246) March, Analysis seminar Aveiro, “Analysis on singular and non-compact spaces and Lie manifolds.”

(247) May, Analysis seminar, U. Delaware, “Extensions of Kondratiev’s results.”

(248) June, Symplectic geometry seminar, Morocco, “Groupoïdes et l’intégration des algébroïdes de Lie.”

(249) September, Working seminar Metz, “Approximations de type WKB et applications à la mécanique quantique et aux probabilités”

(250) October, Conference 40 years of cyclic cohomology, Toronto, “Localization and cyclic homology of crossed products with algebraic groups.”

(251) October, Conference in honor of W. Wendland, Hirschegg, Austria, “A Green function method for parabolic equations”

(252) October, Conference on Semiclassical asymptotics and nonlocal elliptic problems, Moscow, “Analysis on singular and non-compact spaces and Lie manifolds.”

(253) Decembre, Complex analysis conference in memory of Gabriela Kohr, Cluj, Romania, “Lie algebras of vector fields and analysis of boundary value problems.”

(254) February 2022, Analysis conference, Potsdam, “Fredholm condition for isotypical components of invariant operators.”

(255) March, School on Geometric Analysis, sequence of four lectures on “Pseudodifferential operators and index theory.”

(256) June, Joint AMS-SMF Meeting, “On the index of G -invariant pseudodifferential operators.”

(257) June, Analysis seminar, Ghent, “Analysis on non-compact manifolds and index theory.”

(258) July, Operator Theory conference, Timisoara, “On the index of G -invariant pseudodifferential operators.”

(259) July, Conference on Geometric analysis and Groups, Moscow, “On the index of G -invariant pseudodifferential operators.”

(260) August, Oberwolfach Meeting on Noncommutative Geometry, “Cyclic cohomology and the index of G -invariant pseudodifferential operators.”

(261) October, NY Noncommutative Geometry Seminar, “Invariant differential operators acting on quotient spaces and their index.”

(262) November, Analysis-Probability seminar, Bucharest, “Polynomial estimates for the inverses of parametric elliptic operators.”

(263) December, Complex analysis conference in memory of Gabriela Kohr, Cluj, Romania, “Layer potentials on manifolds with cylindrical ends.”

(264) June 2023, Conference on PDEs, Padova, “Layer potentials on manifolds with cylindrical ends.”

(265) July, International congress of Romanian mathematicians, section on PDEs, “Layer potentials on manifolds with cylindrical ends: the Laplace operator.”

(266) July, International congress of Romanian mathematicians, section on Numerical Analysis, “Uniform estimates for transmission problems in the smooth and polygonal cases.”

(267) July, Geometry seminar, Mathematical Institute IMAR, Bucharest, Romania, “Manifolds with bounded geometry, Sobolev spaces and the Fréchet Finiteness Condition.”

(268) August, Summer school on Geometric Analysis, Bruxelles, a series of lectures on “Analysis on manifolds with nice ends, pseudodifferential operators, and applications.”

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