

# Curriculum Vitae of Plamen STEFANOV

**Name:** Plamen D. Stefanov

**M. S.:** Mathematics Department, Sofia University, 1984.

**Ph. D.:** Mathematics Department, Sofia University, November 1988. Advisor: Prof. Dr. Vesselin Petkov.

**Ph. D. Thesis:** Direct and inverse scattering problems for some equations of mathematical physics.

**Dr. Sci.:** Sofia, November 1993 (this degree has no equivalent in the US).

**Current Position:** Professor, Department of Mathematics, Purdue University.

## **Positions held:**

- Researcher at the Section of Mathematical Physics, Institute of Mathematics of Bulgarian Academy of Sciences, November 1988 — January 1993.
- Senior Researcher at the Section of Mathematical Physics, Institute of Mathematics of Bulgarian Academy of Sciences, since February 1993.
- Visiting Assistant Professor, University of Washington, Seattle, Spring–Summer, 1994.
- Visiting Scientist, University of British Columbia, Vancouver, Canada, Academic 1994–1995.
- Visiting Assistant Professor, University of Washington, Seattle, Sept. 1996 – Dec. 1997.
- Assistant Professor, East Carolina University, Greenville, NC, 1998 – 2000.
- Associate Professor, Purdue University, 2000 – 2006.
- Professor, Purdue University, 2006 – present.

## **Address:**

Department of Mathematics  
Purdue University  
West Lafayette, IN 47907  
phone: (765) 496-7330  
email: stefanov@math.purdue.edu

**Other Visiting Positions, Fellowships and Awards:**

- XVIII International Olympiad of Mathematics, Lienz, Austria, 1976 — second prize.
- XIX International Olympiad of Mathematics, Belgrade, Yugoslavia, 1977 — second prize and a special prize for an original solution.
- Chercheur Associé — Department of Mathematics, University of Nantes, France, May 15 – June 15, 1990.
- Travel grant awarded by the International Mathematical Union for participation in the International Congress of Mathematicians, Kyoto, Japan, August 21–29, 1990.
- Post-doctoral fellowship, University of Bordeaux-I, April 1992 – October 1992.
- Research fellow, University of Helsinki, Oct. 1992 – May 1993.
- Chercheur Associé (CNRS), Université de Franche-Comté, Besançon, France, 1994.
- Research fellowship awarded by the French Government, Université de Franche-Comté, Besançon, France, Nov. 1995 – May 1996.
- Associate member of the International Centre for Theoretical Physics, Trieste, Italy, Jan. 1996 – Dec. 2001.
- Visiting Professor, Fields Institute, Toronto, Canada, Sep. and Nov. 1997
- Visiting Professor, Federal University of Pernambuco, Recife, Brazil, Jan. 1 — Oct. 1 1998.
- Professeur Associé, Nantes University, June 2001.
- Research Professor, MSRI–Berkeley, Oct.–Nov. 2001.
- Professeur Invité, Université Paris 13, June 2010.
- Simons Visiting Professor, MSRI, Fall 2010.

**Conference Talks:**

- Conference on Partial Differential Equations, Ruse, Bulgaria, 1985.
- C.I.M.E. Course on Microlocal Analysis and Applications, Montecatini Terme, Italy, July 3–11, 1989.
- Conference on Partial Differential Equations, Ruse, Bulgaria, August 1989.
- Conference on Integral Equations and Inverse Problems, Varna, Bulgaria, Sept. 18–23, 1989.
- R.C.P. 264 Meeting on Inverse Problems, Montpellier, France, Nov. 27 – Dec. 01, 1989.
- Conference on Inverse Problems in Engineering Sciences, Osaka, Japan, August 19–20, 1990.
- IAMP 91 — 10th International Congress on Mathematical Physics, Leipzig, Germany, July 30 – August 9, 1991.
- R.C.P.264 Meeting on Inverse Problems, Montpellier, France, Nov. 28 – Dec. 03, 1991.
- The Lapland Conference on Inverse Problems, Finland, June 14–20, 1992.
- Fourth Colloquium on Differential Equations, Plovdiv, Bulgaria, August 1993.
- Conference on Electric Impedance Tomography, Seattle, July 23–27, 1995.
- Journées Semi-Classiques 5, Université de Paris-Nord, France, Feb. 1996.
- Microlocal Month, University of Pisa, Italy, June 1996.
- Special Session “Inverse Problems: Theory and Practice”, Corvallis, Oregon, April 1997.

- Program in Microlocal Methods in Geometric Analysis and Mathematical Physics, Workshop on Microlocal Analysis and Mathematical Physics, Fields Institute, Toronto, Canada, Sept. 8–14, 1997 and Workshop on Microlocal Methods in Geometric Analysis, Oct. 27–Nov. 2, 1997.
- Conference on Microlocal Methods in Inverse Problems, Kyoto University, Kyoto, Japan, June 29–July 3, 1998.
- AMS Special Session, Salt Lake City, Sep. 24-26, 1999.
- Workshop, Program on Scattering Theory, Erwin Schrödinger Institute, Vienna, May 2001.
- PDE conference, Plestin–les–Grèves, France, June 5-8, 2001.
- Workshop on Inverse Problems at the MSRI, Nov. 2001.
- Workshop on Inverse Problems and Applications, Cortona, Italy, June 3-9 2002.
- AMS-UMI meeting, Pisa, Italy, June 12-16 2002.
- Scattering and Inverse Scattering conference, Banff, Canada, March 2003.
- MSRI workshop on Semiclassical Analysis, May 2003.
- Symposium on Scattering Theory, Recife, Brazil, August 2003.
- Conference "Perspectives in Inverse Problems", Helsinki, May 2004.
- AMS Special Session on Inverse Problems, Vanderbilt University, October 2004.
- AMS Special Session on Geometric Partial Differential Equations, Evanston, October 2004.
- AMS Special Session on Mathematical Theory of Inverse Problems and Applications, Atlanta, January 2005.
- Conference: "Eigenfunctions of the Laplacian", UW Seattle, July 27–28, 2005.
- Summer School on Inverse Problems, UW Seattle, Aug. 1–5, 2005, 3 lecture mini-course.
- AMS Special Session on Scattering and Spectral Problems in Geometry, Lincoln, NE, October 21–23, 2005.
- Conference: Analysis and Probability in Quantum Physics, Chile, July–Aug. 2006.
- Conference on Inverse Problems in Sapporo, Japan, July 2006.
- Workshop at Tsukuba University, Japan, July 2006.
- Workshop on Inverse Problems, Banff, Aug. 2006.
- AMS Special Session on Scattering Theory and Wave Propagation, Fayetteville, AR, Nov. 3-4, 2006.
- AMS session at the National AMS meeting in New Orleans, January 2007.
- Mini-course for graduate students at IMPA, Rio de Janeiro, January, 2007.
- Conference on Inverse Problems honoring Alberto Calderón, Rio de Janeiro, January, 2007.
- Analyse microlocale et harmonique pur les problèmes inverses, C.I.R.M, Luminy, France, March 26–30, 2007.
- Hyperbolic Operators and Scattering, Bordeaux, France, May 21–24, 2007.
- Summer School on Inverse Problems and Radiative Transfer, Seattle, June 18–22, 2007.
- First International Congress of IPIA, June 2007, plenary talk.
- Special AMS session: Wave Propagation from Mathematical and Numerical Viewpoints, De Paul University, Oct. 2007.

- Summer School on Inverse Problems and Radiative Transfer, and a Workshop, University of California at Merced, June 2008.
- Integral Geometry and Tomography, Stockholm University, August 12–15, 2008.
- Second Symposium on Scattering and Spectral Theory, Serrambi, Brazil, August 18–22, 2008.
- Inverse Problems: Recent Progress and New Challenges, Banff, Nov. 2008.
- 1st PRIMA Congress, Sidney, June 6–10, 2009.
- Conference on Applied Inverse Problems 2009, Vienna, Austria, July 20–24, 2009.
- Summer Grad Workshop at MSRI on Inverse Problems, July 20–31, 2009, a 5 lecture mini-course.
- Mathematical Methods in Emerging Modalities of Medical Imaging, Banff, October 25–30, 2009
- Joint AMS-Korean Math. Soc. Meeting, Seoul, December 16–20, 2009.
- WIPA 2010 Workshop on Inverse Problems and Applications, Valparaiso, Chile, January 18–22, 2010.
- Inverse Problems: Theory and Applications, MSRI Workshop, November 2010.
- Computational Wave Propagation Workshop at MSU, April 2011.
- AIP (Applied Inverse Problems) 2011, Texas A&M, May 2011, two talks.
- Microlocal Methods in Mathematical Physics and Global Analysis, Tübingen, Germany, June 14–18, 2011.
- Inverse Problems in Analysis and Geometry workshop, Isaac Newton Institute, Cambridge, UK, August 1–5, 2011.
- The 2012 Joint Mathematics Meetings in Boston, January 4–7, two mini-symposium talks.
- Workshop on Geometric Analysis on Euclidean and Homogeneous Spaces at Tufts University, January 8–9, 2012.
- PASI-CIPPDE 2012 — Pan-American Advanced Studies Institute — Inverse Problems and PDE Control, Santiago, Chile, 16–27 January 2012.

#### **Seminar and Colloquium Talks:**

- University of Nantes, France, May 1990.
- University of Paris-Nord, France, June 1990.
- University of Bordeaux-I, France, December, 1991, May 1992.
- Université de Franche-Comté, Besançon, France, October 1992.
- I.N.R.I.A., France, October 1992.
- University of Helsinki, Finland, October, November 1992, January 1993.
- University of Delaware, March 1993.
- Kansas State University, March 1993.
- Wichita State University, March 1993.
- University of Nantes, France, Jan. 1994.
- Université de Franche-Comté, Besançon, France, Feb. 1994.
- Séminaire Problèmes spectraux en physique mathématique, Paris XIII/Paris XI/ l'E.N.S., Feb. 1994.

- Institut Fourier, Grenoble, France, Feb. 1994.
- Seminar on Multi-Dimensional Inverse Scattering, University of Washington, Seattle, April 1994.
- Seminar on Inverse Scattering, University of British Columbia, Vancouver, Canada, April 1994.
- Seminar on Partial Differential Equations, University of British Columbia, Vancouver, Canada, October 1994.
- Université de Franche-Comté, Besançon, France, Dec. 1995.
- University of Bordeaux-I, France, Feb. 1996.
- University of Nantes, France, Feb. 1996.
- UFPE, Recife, Brazil, Aug. 1996.
- Differential Geometry/PDE Seminar, University of Washington, Seattle, Nov. 1996.
- Differential Geometry/PDE Seminar, University of Washington, Seattle, Nov. 1997.
- Seminar on PDE, Osaka University, Osaka, Japan, June 1998.
- UFPE, Recife, Brazil, Sep. 1998.
- PDE seminar, Purdue University, Febr. and March, 2001.
- PDE seminar, University of Bordeaux, June 2001.
- MSRI seminar, September 2001.
- Colloquium talk, Math Department, University of California at Berkeley, Nov. 2001.
- PDE seminar, University of Bologna, Italy, June 2002.
- PDE seminar, University of Metz, June 2002.
- PDE seminar, University of Washington, Seattle, July 2002.
- MSRI seminar on Semiclassical Analysis, March 2003.
- PDE/Inverse Problems seminar, Wichita State University, Wichita, April, 2003.
- Inverse Problems seminar at UW, Seattle, May 2003.
- PDE Seminar, University of Kentucky, November 2003.
- PDE seminar, Northwestern University, February, 2004.
- Colloquium talk, Department of Mathematics, University of Alabama at Birmingham, April 2004.
- PDE seminar, University of Washington, Seattle, July 2004.
- PDE seminar, University of Washington, Seattle, Feb. and March 2007.
- Colloquium talk at the Department of Applied Physics and Applied Mathematics, Columbia University, May 2007.
- Colloquium talk at the Department of Department of Mathematics, University of Washington, May 2008.
- Applied Math Seminar, Michigan State University, Oct. 2008.
- PDE seminar, University of Rochester, April 2009.
- Colloquium talk, University of Western Australia, Perth, July 2009.
- PDE seminar, UC–Berkeley, Oct. 2009.

- Seminar, EPFL Lausanne, May 2010.
- Applied Math Seminar, University of Bordeaux, June 2010.
- Universt  Paris 13, June 2010.
- Metz University, July 2010.
- Bay Area Microlocal Seminar, Stanford University, November 2010.
- Colloquium talk, Math. Dept., Central Florida University, November 2011.

### Grants:

- Agency: Bulgarian Research Foundation. Grant Title: Scattering Theory and Inverse Problems. Duration: 1991–94, PI.
- Agency: NSF. Grant Title: *U.S.–Bulgaria Mathematics Research on Multidimensional Inverse Scattering*. Duration: 2001–04. CoPI and PI of the Bulgarian team.
- Agency: NSF. Grant Title: *Inverse Problems and Scattering Poles*. Duration: May 2000–May 2004, PI.
- Agency: NSF. Grant Title: *Inverse Anisotropic Problems and Resonances*. Duration: May 2004–May 2007, PI.
- Agency: U.S. Civilian Research & Development Foundation (CRDF). Grant Title: *Geometric Rigidity, Integral Geometry, and Inverse Problems*, No. 15483, Collaborative grant for US – Eurasia collaboration. Duration: Feb. 2007 – Feb. 2010, CoPI.
- Agency: NSF. Grant Title: *Collaborative Research: FRG: Inverse Problems in Transport Theory*. Duration: July 2006 – July 2009, CoPI.
- Agency: NSF. Grant Title: *US – Brazil Workshop on Scattering and Spectral Theory* in Recife and Serrambi, Brazil. Duration: Feb. 2008 – Feb. 2009, PI.
- Agency: NSF. Grant Title: *Scattering and Traveltime Tomography*. Duration: May 2008 – May 2013, PI.

### Conferences I helped organize:

- Secretary of the Organizing Committee of the Conference on Integral Equations and Inverse Problems, Varna, Bulgaria, September 18–23, 1989.
- Member of the Scientific Committee, Conference on Microlocal and Harmonic Analysis in Inverse Problems at CIRM, Luminy, France, March 2007.
- Member of the Organizing Committee, Second Symposium on Scattering and Spectral Theory in Recife and Serrambi, Pernambuco, Brazil, August 11–22, 2008.
- Workshop on Inverse Transport Theory and Tomography, Banff, May 16–21, 2010.
- Conference on Inverse Problems in honor of Gunther Uhlmann, UC Irvine, June 2012.

**List of Publications of Plamen Stefanov**

- [1] P. Stefanov, Existence of the wave operators for dissipative systems, *Compt. Rend. Acad. Bulg. Sci.* **37**(6)(1984), 729–731.
- [2] P. Stefanov, Existence and completeness of the wave operators for dissipative systems, *Serdica* **13**(1987), 126–132.
- [3] P. Stefanov, Existence and completeness of wave operators for Maxwell equations in inhomogeneous media, *Compt. Rend. Acad. Bulg. Sci.* **38**(5)(1985), 547–550.
- [4] P. Stefanov and V. Georgiev, Existence of the scattering operator for dissipative hyperbolic systems with variable multiplicities, *J. Operator Theory* **19**(1988), 217–241.
- [5] P. Stefanov, Spectral and scattering theory for the linear Boltzmann equation in exterior domain, *Compt. Rend. Acad. Bulg. Sci.* **40**(1)(1987), 21–23.
- [6] P. Stefanov, Spectral and scattering theory for the linear Boltzmann equation in exterior domain, *Math. Nachr.* **137**(1988), 63–77.
- [7] P. Stefanov, Inverse scattering problem for the wave equation with time dependent potential, *Compt. Rend. Acad. Bulg. Sci.* **40**(11)(1987), 29–30.
- [8] P. Stefanov, Inverse scattering problem for the wave equation with time dependent potential, *J. Math. Anal. Appl.* **140**(1989), 351–362.
- [9] P. Stefanov, Unicité du problème inverse de diffusion pour l'équation des ondes avec un potentiel dépendant du temps, *C. R. Acad. Sci. Paris* **305**(1987), 411–413.
- [10] P. Stefanov, Uniqueness of the inverse scattering problem for the wave equation with a potential depending on time, *Inverse Prob.* **4**(1988), 913–920.
- [11] P. Stefanov, The Newton-Marchenko equation for time-dependent potentials, *Inverse Prob.* **4**(1988), 921–928.
- [12] P. Stefanov, Uniqueness of the three-dimensional inverse scattering problem for time-dependent potentials, *Inverse Prob.* **5**(1989), L11-L14.
- [13] P. Stefanov, Uniqueness of the multi-dimensional inverse scattering problem for time-dependent potentials, *Math. Z.* **201**(1989), 541–559.
- [14] P. Stefanov, On the inverse scattering problem for a class of moving obstacles, *Compt. Rend. Acad. Bulg. Sci.* **42**(6)(1989), 25–27.
- [15] P. Stefanov, A uniqueness result for the inverse back-scattering problem, *Inverse Prob.* **6**(1990), 1055-1064.
- [16] P. Stefanov, Some inverse problems in potential scattering, in: *Integral Equations and Inverse Problems*, Editors Petkov and Lazarov, Pitman Research Notes in Mathematics Series 235, Longman Scientific & Technical, 1991.
- [17] P. Stefanov, Inverse scattering problems for the wave equation with time dependent impurities, in: *Inverse Methods in Action*, series IPTI, ed. P. C. Sabatier, Springer, 1990, 212-226.
- [18] P. Stefanov, Inverse scattering problem for moving obstacles, *Math. Z.* **207**(1991), 461–480.
- [19] P. Stefanov, Stability of the inverse problem in potential scattering at fixed energy, *Ann. Inst. Fourier, Grenoble* **40**(1990), 867–884.
- [20] P. Stefanov, Generic uniqueness for two inverse problems in potential scattering, *Comm. P.D.E.* **17**(1992), 55–68.
- [21] A. G. Ramm and P. Stefanov, A three-dimensional Ambartsumian-type theorem, *Appl. Math. Lett.* **5**(5)(1992), 87–88.

- [22] A. G. Ramm and P. Stefanov, Fixed energy inverse scattering for non-compactly supported potentials, *Math. & Comput. Modeling* **18**(1993), 57–64.
- [23] P. Stefanov, Stability of the resonances under smooth perturbations of the boundary, *Asympt. Anal.* **9** (1994), 291–296.
- [24] A. G. Ramm and P. Stefanov, Fixed energy inverse scattering for exponentially decreasing potentials, in: *Lecture Notes in Physics*, vol. 422, Springer, 1993, 189–192.
- [25] P. Stefanov and G. Vodev, Distribution of resonances for the Neumann problem in linear elasticity outside a ball, *Ann. Inst. Henry Poincaré (Phys. Théorique)* **60**(3)(1994), 303–321.
- [26] A. G. Ramm and P. Stefanov, Scattering amplitude is not a finite rank kernel, *J. Inverse and Ill-Posed Prob.* **1**(4)(1993), 349–353.
- [27] P. Stefanov and G. Vodev, Distribution des résonances pour le système de l'élasticité, *Séminaire sur les Équations aux Dérivées Partielles, 1993–1994*, Exp. No. X, Ecole Polytech., Palaiseau, 1994.
- [28] P. Stefanov and G. Vodev, Distribution of resonances for the Neumann problem in linear elasticity outside a strictly convex body, *Duke Math. J.* **78**(1995), 677–714.
- [29] M. Choulli and P. Stefanov, Scattering inverse pour l'équation du transport et relations entre les opérateurs de scattering et d'albédo, *C. R. Acad. Sci. Paris* **320**(1995), 947–952.
- [30] P. Stefanov and G. Vodev, Neumann resonances in linear elasticity for an arbitrary body, *Comm. Math. Phys.* **176**(1996), 645–659.
- [31] M. Choulli and P. Stefanov, Inverse scattering and inverse boundary value problems for the linear Boltzmann equation, *Comm. P.D.E.* **21**(5&6)(1996), 763–785.
- [32] M. Chabi, M. Mokhtar-Kharroubi and P. Stefanov, Scattering theory with two  $L^1$  spaces: application to transport equations with obstacles, *Ann. Fac. Sci. Toulouse* **6**(3)(1997), 511–523
- [33] P. Stefanov and G. Uhlmann, Inverse backscattering for the acoustic equation, *SIAM J. Math. Anal.* **28**(5)(1997), 1191–1204.
- [34] M. Choulli and P. Stefanov, Reconstruction of the coefficients of the stationary transport equation from boundary measurements, *Inverse Prob.* **12**(1996), L19–L23.
- [35] M. Choulli and P. Stefanov, An inverse boundary value problem for the stationary transport equation, *Osaka J. Math.* **36**(1)(1999), 87–104.
- [36] P. Stefanov and G. Uhlmann, Stability estimates for the hyperbolic Dirichlet to Neumann map in anisotropic media, *J. Funct. Anal.* **154**(2) (1998), 330–358.
- [37] P. Stefanov and G. Uhlmann, Rigidity for metrics with the same lengths of geodesics, *Math. Res. Lett.* **5**(1998), 83–96.
- [38] P. Stefanov, Quasimodes and resonances: sharp lower bounds, *Duke Math. J.* **99**(1999), 75–92.
- [39] P. Stefanov, Lower bound of the number of the Rayleigh resonances for arbitrary body, *Indiana Univ. Math. J.*, **49**(2)(2000), 405–426.
- [40] P. Stefanov, Resonances near the real axis imply existence of quasimodes, *C. R. Acad. Sci. Paris, Série I*, **330**(2)(2000), 105–108.
- [41] P. Stefanov, Resonance expansions and Rayleigh waves, *Math. Res. Lett.*, **8**(1–2)(2001), 105–124.
- [42] P. Stefanov, Weyl type upper bounds on the number of resonances near the real axis for trapped systems, *Journées Équations aux Dérivées Partielles, Plestin-les-grèves*, 5–8 juin 2001, Exposé No. XIII.
- [43] P. Stefanov, Estimates on the residue of the scattering amplitude, *Asympt. Anal.* **32**(3–4)(2002), 317–333.

- [44] P. Stefanov, Sharp upper bounds on the number of resonances near the real axis for trapping systems, *Amer. J. Math.* **125**(1)(2003), 183–224.
- [45] P. Stefanov and Gunther Uhlmann, Optical Tomography in two dimensions, *Methods Appl. Anal.* **10**(1)(2003), 1–9.
- [46] S. Nakamura, P. Stefanov and M. Zworski, Resonance expansions of propagators in the presence of potential barriers, *J. Funct. Anal.* **205**(2003), 180–205.
- [47] P. Stefanov, Inverse problems in Transport Theory, in *Inside Out: Inverse Problems and Applications*, MSRI publications, Vol. 47, 2003.
- [48] P. Stefanov and G. Uhlmann, Local uniqueness for the fixed energy fixed angle inverse problem in obstacle scattering, *Proc. AMS* **132**(2004), 1351–1354.
- [49] P. Stefanov and G. Uhlmann, Stability estimates for the X-ray transform of tensor fields and boundary rigidity, *Duke Math. J.* **123**(2004), 445–467.
- [50] P. Stefanov and G. Uhlmann, Stable determination of generic simple metrics from the hyperbolic Dirichlet-to-Neumann map, *IMRN* **17**(2005), 1046–1071.
- [51] P. Stefanov and G. Uhlmann, Recent progress on the boundary rigidity problem, *Electronic Research Announcements of the AMS*, 11(2005), 64–70.
- [52] P. Stefanov and G. Uhlmann, Boundary rigidity and stability for generic simple metrics, *J. Amer. Math. Soc.*, **18**(2005), 975–1003.
- [53] P. Stefanov, Approximating resonances with the Complex Absorbing Potential Method, *Commun. PDE.* **30**(2005), 1843–1862.
- [54] P. Stefanov, Sharp upper bounds on the number of scattering poles, *J. Funct. Anal.* **231**(1)(2006), 111–142.
- [55] N. Dairbekov, G. Paternain, P. Stefanov, and G. Uhlmann, The boundary rigidity problem in the presence of a magnetic field, *Advances Math.* **216**(2)(2007), 535–609.
- [56] P. Stefanov and G. Uhlmann, Boundary and Lens Rigidity, Tensor Tomography and Analytic Microlocal Analysis, in: *Algebraic Analysis of Differential Equations, Festschrift in Honor of Takahiro Kawai*, edited by T. Aoki, H. Majima, Y. Katei and N. Tose, pp. 275–293 (2008).
- [57] P. Stefanov, Microlocal approach to tensor tomography and boundary and lens rigidity, *Serdica Math. J.*, **34**(1)(2008), 67–112.
- [58] B. Frigyik, P. Stefanov and G. Uhlmann, The X-Ray transform for a generic family of curves and weights, *J. Geom. Anal.* **18**(1)(2008), 81–97.
- [59] P. Stefanov and G. Uhlmann, Integral geometry of tensor fields on a class of non-simple Riemannian manifolds, *Amer. J. Math.*, **130**(1)(2008), 239–268.
- [60] P. Stefanov, A sharp stability estimate in tensor tomography, *J. of Physics: Conference Series*, **124**(2008), 012007.
- [61] P. Stefanov and G. Uhlmann, An inverse source problem in optical molecular imaging, *Analysis & PDE* **1**(1)(2008), 115–126.
- [62] P. Stefanov and G. Uhlmann, Local lens rigidity with incomplete data for a class of non-simple Riemannian manifolds, *J. Diff. Geom.* **82**(2)(2009), 383–409.
- [63] P. Stefanov and Venky Krishnan, A support theorem for the geodesic ray transform of symmetric tensor fields, *Inverse Problems and Imaging*, **3**(3), (2009) 453–464.
- [64] P. Stefanov and G. Uhlmann, Linearizing non-linear inverse problems and an application to inverse backscattering, *J. Func. Anal.* **256**(9)(2009), 2842–2866.

- [65] P. Stefanov and A. Tamasan, Uniqueness and non-uniqueness in inverse radiative transfer, *Proc. A.M.S.* **137** (2009), 2335–2344.
- [66] P. Stefanov and G. Uhlmann, Thermoacoustic tomography with variable sound speed, *Inverse Prob.* **25**(2009), 075011.
- [67] S. McDowall, P. Stefanov and A. Tamasan, Gauge equivalence in stationary radiative transport through media with varying index of refraction, *Inverse Problems and Imaging* **4**(1)(2009) 151–167.
- [68] S. Holman and P. Stefanov, The weighted Doppler transform, *Inverse Problems and Imaging* **4**(1)(2010), 111–130.
- [69] S. McDowall, P. Stefanov and A. Tamasan, Stability of the gauge equivalent classes in stationary inverse transport, *Inverse Prob.* **26**(2010), 025006.
- [70] P. Stefanov and G. Uhlmann, The geodesic X-ray transform with caustics, to appear in *Analysis & PDE*.
- [71] P. Stefanov and G. Uhlmann, Thermoacoustic tomography arising in brain imaging, *Inverse Prob.* **27**(2011), 045004.
- [72] J. Qian, P. Stefanov, G. Uhlmann and H. Zhao, An efficient Neumann-series based algorithm for Thermoacoustic and Photoacoustic Tomography with variable sound speed, *SIAM J. Imaging Sciences*, **4**(2011), 850–883.
- [73] P. Stefanov and G. Uhlmann, Recovery of a source term or a speed with one measurement and applications, to appear in *Trans. Amer. Math. Soc.*
- [74] P. Stefanov, The Identification Problem for the attenuated X-ray transform, submitted.
- [75] M. Choulli and P. Stefanov, Stability for the multi-dimensional Borg-Levinson theorem with partial spectral data, submitted.
- [76] P. Stefanov and G. Uhlmann, Multi-wave methods via ultrasound, to appear in *Inside Out*, proceedings of a 2010 MSRI workshop.