Stanford



Andras Vasy

Robert Grimmett Professor of Mathematics

Curriculum Vitae available Online

Bio

ACADEMIC APPOINTMENTS

- Professor, Mathematics
- Member, Institute for Computational and Mathematical Engineering (ICME)

ADMINISTRATIVE APPOINTMENTS

- Professor, Department of Mathematics, Stanford University, (2008- present)
- Associate Professor, Department of Mathematics, Stanford University, (2005-2008)
- Visiting Associate Professor, Department of Mathematics, Northwestern University, (2004-2005)
- Associate Professor, Department of Mathematics, Massachusetts Institute of Technology, (2003-2006)
- Enseignant invité, Département de Mathématiques, Université de Nantes, (2002-2002)
- Local organizer, Programme in Scattering Theory, Erwin Schrödinger Institute, Vienna, Austria, (2001-2001)
- Assistant Professor, Department of Mathematics, Massachusetts Institute of Technology, (1999-2003)
- Morrey Assistant Professor, Department of Mathematics, University of California, Berkeley, (1997-2000)
- Teaching Assistant, Department of Mathematics, Massachusetts Institute of Technology, (1993-1996)
- Alfred P. Sloan Research Fellowship, Alfred P. Sloan Foundation, (2002-2004)
- Alfred P. Sloan Doctoral Dissertation Fellowship, Alfred P. Sloan Foundation, (1996-1997)
- Clay Research Fellowship, Clay Mathematics Institute, (2004-2006)
- Chambers Fellowship, Stanford University, (2008-2009)

HONORS AND AWARDS

- Simons Fellowship, Simons Foundation (2025-2026)
- Elected as a member, American Academy of Art and Sciences (2019)
- Simons Fellowship, Simons Foundation (2017-2018)
- Bocher Prize, American Mathematical Society (2017)
- Invited speaker for the Partial Differential Equations section, International Congress of Mathematicians, Seoul (2014)
- Clay Research Fellowship, Clay Mathematics Institute (2004-2006)
- Alfred P. Sloan Research Fellowship, Alfred P. Sloan Foundation (2002-2004)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Co-Managing editor, Communications of the American Mathematical Society (2024 - present)

- Department Chair, Department of Mathematics, Stanford University (2022 - 2025)
- Editor, Communications of the American Mathematical Society (2020 - 2024)
- Co-organizer, Programme on the 'Modern Theory of Wave Equations', Erwin Schrödinger Institute, Vienna, Austria (2015 - 2015)
- Member, Natural Sciences Curriculum Review Committee, Stanford University, School of Humanities and Sciences (2012 - 2013)
- Co-organizer, 'A conference on Inverse Problems in honor of Gunther Uhlmann', University of California, Irvine (2012 - 2012)
- Co-organizer, conference 'Microlocal methods in mathematical physics and global analysis', Tübingen, Germany (2011 - 2011)
- Co-organizer, conference 'Microlocal methods in spectral and scattering theory', Northwestern University (2011 - 2011)
- Co-organizer, conference 'From wave propagation to K-theory', Stanford University (2008 - 2008)
- Co-organizer, semester-long Program on Analysis of Singular Spaces, Mathematical Sciences Research Institute, Berkeley, CA (2008 - 2008)
- Editor, Analysis & PDE (journal) (2007 - present)
- Director of Graduate Studies, Stanford University, Department of Mathematics (2007 - 2010)
- Co-organizer, conference on Spectral Theory and Global Analysis, University of Oldenburg, Germany (2006 - 2006)
- Co-organizer, Scattering Theory and Singular Spaces, Northwestern University (2005 - 2005)
- Co-organizer, conference on Scattering Theory and Singular Spaces, Northwestern University (2005 - 2005)
- Co-organizer, Geometric Analysis: a conference in Honor of Richard Melrose, Massachusetts Insitute of Technology (2002 - 2002)
- Local organizer, semester-long Programme in Scattering Theory, Erwin Schrödinger Institute, Vienna, Austria (2001 - 2001)

PROFESSIONAL EDUCATION

- Ph.D., Massachusetts Institute of Technology , Mathematics (1997)
- M.S., Stanford University , Mathematics (1993)
- B.S., Stanford University , Physics (1993)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research concentrates on topics in two broad areas of applications of microlocal analysis in which, partly with collaborators, I introduced new ideas in recent years: non-elliptic linear and non-linear partial differential equations (PDE), typically concerning wave propagation or other related phenomena, and inverse problems for X-ray type transforms along geodesics and related problems for determining the metric tensor from boundary measurements.

Some of my work describes the long-time or far field behavior, including existence, of waves on curved space-times. Physically these arise in general relativity, including electromagnetic waves on a curved background. The microlocal approach to analysis on these spaces has made breakthroughs possible on linear and non-linear problems on asymptotically hyperbolic (AH) spaces as well as Kerr-de Sitter (KdS) space (rotating black holes in a cosmological spacetime), culminating in the proof of the stability of slowly rotating KdS spaces with Peter Hintz. More recently, with Dietrich Hafner and Peter Hintz, I extended some of these tools to the vanishing cosmological constant case (Minkowski, Kerr). Ongoing work aims to extend these tools to further spaces, such as perturbations of Kerr spacetimes, and also to study other equations on cosmological spacetimes. Other projects study basic objects in quantum field theory, in particular the Feynman propagator.

Another main area of my interest is inverse problems, where, together with Gunther Uhlmann, I introduced new tools for the spatially localized inversion of the geodesic X-ray transform, and with Plamen Stefanov and Gunther Uhlmann we extended this to the boundary rigidity problem, namely determining a Riemannian metric on a manifold with boundary from the length of geodesic segments connecting boundary points. Ongoing work involves

extensions of this to anisotropic elasticity which plays an important role in the interior of the Earth. Another project with Yiran Wang studies the light ray transform with potential applications to imaging by the cosmic background radiation.

Teaching

COURSES

2026-27

- Elementary Functional Analysis: MATH 175 (Aut)
- Proofs and Modern Mathematics: MATH 56 (Win)
- Topics in Analysis and Partial Differential Equations: MATH 272 (Aut)

2024-25

- Topics in Partial Differential Equations: MATH 272 (Aut)

2023-24

- Proofs and Modern Mathematics: MATH 56 (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Romain Speciel

Doctoral Dissertation Advisor (AC)

Selim Amar

Doctoral (Program)

Dinghan Wang

Publications

PUBLICATIONS

- **Wave equations in the Kerr-de Sitter spacetime: The full subextremal range** *JOURNAL OF THE EUROPEAN MATHEMATICAL SOCIETY*
  Petersen, O., Vasy, A.
  2024; 27 (8): 3497-3526
- **Local and global boundary rigidity and the geodesic X-ray transform in the norma gauge** *ANNALS OF MATHEMATICS*
  Stefanov, P., Uhlmann, G., Vasy, A.
  2021; 194 (1): 1-95
- **Linear stability of slowly rotating Kerr black holes** *INVENTIONES MATHEMATICAE*
  Hafner, D., Hintz, P., Vasy, A.
  2020
- **The global non-linear stability of the Kerr-de Sitter family of black holes** *ACTA MATHEMATICA*
  Hintz, P., Vasy, A.
  2018; 220 (1): 1–206
- **The inverse problem for the local geodesic ray transform** *INVENTIONES MATHEMATICAE*
  Uhlmann, G., Vasy, A.
  2016; 205 (1): 83-120
- **BOUNDARY RIGIDITY WITH PARTIAL DATA** *JOURNAL OF THE AMERICAN MATHEMATICAL SOCIETY*
  Stefanov, P., Uhlmann, G., Vasy, A.
  2016; 29 (2): 299-332

- **Microlocal analysis of asymptotically hyperbolic and Kerr-de Sitter spaces (with an appendix by Semyon Dyatlov)** *INVENTIONES MATHEMATICAE*
  Vasy, A.
  2013; 194 (2): 381-513
- **An analogue of non-interacting quantum field theory in Riemannian signature** *JOURNAL OF SPECTRAL THEORY*
  Molodyk, M., Vasy, A.
  2026; 16 (3): 927-982
- **WAVE PROPAGATION AND GENERAL RELATIVITY** *DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS*
  Vasy, A.
  2026
- **MICROLOCAL ANALYSIS NEAR NULL INFINITY IN ASYMPTOTICALLY FLAT SPACETIMES** *ANALYSIS & PDE*
  Hintz, P., Vasy, A.
  2026; 19 (1)
- **Linear stability of slowly rotating Kerr black holes (vol 223, pg 1227, 2021)** *INVENTIONES MATHEMATICAE*
  Hafner, D., Hintz, P., Vasy, A.
  2024
- **THE TENSORIAL X-RAY TRANSFORM ON ASYMPTOTICALLY CONIC SPACES** *INVERSE PROBLEMS AND IMAGING*
  Jia, Q., Vasy, A.
  2024
- **Stationarity and Fredholm Theory in Subextremal Kerr-de Sitter Spacetimes** *SYMMETRY INTEGRABILITY AND GEOMETRY-METHODS AND APPLICATIONS*
  Petersen, O., Vasy, A.
  2024; 20
- **THE X-RAY TRANSFORM ON ASYMPTOTICALLY CONIC SPACES** *PURE AND APPLIED ANALYSIS*
  Vasy, A., Zachos, E.
  2024; 6 (3)
- **A de Sitter no-hair theorem for 3+1d cosmologies with isometry group forming 2-dimensional orbits** *ADVANCES IN MATHEMATICS*
  Creminelli, P., Hershkovits, O., Senatore, L., Vasy, A.
  2023; 434
- **Analyticity of Quasinormal Modes in the Kerr and Kerr-de Sitter Spacetimes** *COMMUNICATIONS IN MATHEMATICAL PHYSICS*
  Petersen, O., Vasy, A.
  2023
- **On the Light Ray Transform of Wave Equation Solutions** *COMMUNICATIONS IN MATHEMATICAL PHYSICS*
  Vasy, A., Wang, Y.
  2021
- **Asymptotically flat Einstein-Maxwell fields are inheriting** *COMMUNICATIONS IN ANALYSIS AND GEOMETRY*
  Chrusciel, P. T., Nguyen, L., Tod, P., Vasy, A.
  2021; 29 (3): 579-627
- **Resolvent near zero energy on Riemannian scattering (asymptotically conic) spaces, a Lagrangian approach** *COMMUNICATIONS IN PARTIAL DIFFERENTIAL EQUATIONS*
  Vasy, A.
  2020
- **Limiting absorption principle on Riemannian scattering (asymptotically conic) spaces, a Lagrangian approach** *COMMUNICATIONS IN PARTIAL DIFFERENTIAL EQUATIONS*
  Vasy, A.
  2020

- **Asymptotic Behavior of Cosmologies with Lambda > 0 in 2+1 Dimensions** *COMMUNICATIONS IN MATHEMATICAL PHYSICS*
  Creminelli, P., Senatore, L., Vasy, A.
  2020; 376 (2): 1155–70
- **Essential self-adjointness of the wave operator and the limiting absorption principle on Lorentzian scattering spaces** *JOURNAL OF SPECTRAL THEORY*
  Vasy, A.
  2020; 10 (2): 439–61
- **Recovery of Material Parameters in Transversely Isotropic Media** *ARCHIVE FOR RATIONAL MECHANICS AND ANALYSIS*
  de Hoop, M. V., Uhlmann, G., Vasy, A.
  2020; 235 (1): 141–65
- **Travel Time Tomography** *ACTA MATHEMATICA SINICA-ENGLISH SERIES*
  Stefanov, P., Uhlmann, G., Vasy, A., Zhou, H.
  2019; 35 (6): 1085–1114
- **Inverting the local geodesic X-ray transform on tensors** *JOURNAL D ANALYSE MATHEMATIQUE*
  Stefanov, P., Uhlmann, G., Vasy, A.
  2018; 136 (1): 151–208
- **ASYMPTOTICS FOR THE WAVE EQUATION ON DIFFERENTIAL FORMS ON KERR-DE SITTER SPACE** *JOURNAL OF DIFFERENTIAL GEOMETRY*
  Hintz, P., Vasy, A.
  2018; 110 (2): 221–79
- **Quantum Fields from Global Propagators on Asymptotically Minkowski and Extended de Sitter Spacetimes** *ANNALES HENRI POINCARE*
  Vasy, A., Wrochna, M.
  2018; 19 (5): 1529–86
- **Asymptotics of scalar waves on long-range asymptotically Minkowski spaces** *ADVANCES IN MATHEMATICS*
  Baskin, D., Vasy, A., Wunsch, J.
  2018; 328: 160–216
- **Local recovery of the compressional and shear speeds from the hyperbolic DN map** *INVERSE PROBLEMS*
  Stefanov, P., Uhlmann, G., Vasy, A.
  2018; 34 (1)
- **On the Positivity of Propagator Differences** *ANNALES HENRI POINCARE*
  Vasy, A.
  2017; 18 (3): 983-1007
- **ON THE STABLE RECOVERY OF A METRIC FROM THE HYPERBOLIC DN MAP WITH INCOMPLETE DATA** *INVERSE PROBLEMS AND IMAGING*
  Stefanov, P., Uhlmann, G., Vasy, A.
  2016; 10 (4): 1141-1147
- **The Feynman Propagator on Perturbations of Minkowski Space** *COMMUNICATIONS IN MATHEMATICAL PHYSICS*
  Gell-Redman, J., Haber, N., Vasy, A.
  2016; 342 (1): 333-384
- **Global Analysis of Quasilinear Wave Equations on Asymptotically Kerr-de Sitter Spaces** *INTERNATIONAL MATHEMATICS RESEARCH NOTICES*
  Hintz, P., Vasy, A.
  2016: 5355-5426
- **ASYMPTOTICS OF RADIATION FIELDS IN ASYMPTOTICALLY MINKOWSKI SPACE** *AMERICAN JOURNAL OF MATHEMATICS*
  Baskin, D., Vasy, A., Wunsch, J.
  2015; 137 (5): 1293-1364

- **DIFFRACTION FROM CONORMAL SINGULARITIES** *ANNALES SCIENTIFIQUES DE L ECOLE NORMALE SUPERIEURE*
  de Hoop, M., Uhlmann, G., Vasy, A.
  2015; 48 (2): 351-408
- **PROPAGATION OF SINGULARITIES AROUND A LAGRANGIAN SUBMANIFOLD OF RADIAL POINTS** *BULLETIN DE LA SOCIETE MATHEMATIQUE DE FRANCE*
  Haber, N., Vasy, A.
  2015; 143 (4): 679-726
- **SEMILINEAR WAVE EQUATIONS ON ASYMPTOTICALLY DE SITTER, KERR-DE SITTER AND MINKOWSKI SPACETIMES** *ANALYSIS & PDE*
  Hintz, P., Vasy, A.
  2015; 8 (8): 1807-1890
- **From resolvent estimates to damped waves** *JOURNAL D ANALYSE MATHEMATIQUE*
  Christianson, H., Schenck, E., Vasy, A., Wunsch, J.
  2014; 122: 143-162
- **Analytic Continuation and Semiclassical Resolvent Estimates on Asymptotically Hyperbolic Spaces** *COMMUNICATIONS IN PARTIAL DIFFERENTIAL EQUATIONS*
  Melrose, R., Barreto, A. S., Vasy, A.
  2014; 39 (3): 452-511
- **Asymptotics of Solutions of the Wave Equation on de Sitter-Schwarzschild Space** *COMMUNICATIONS IN PARTIAL DIFFERENTIAL EQUATIONS*
  Melrose, R., Barreto, A. S., Vasy, A.
  2014; 39 (3): 512-529
- **Resolvents, Poisson operators and scattering matrices on asymptotically hyperbolic and de Sitter spaces** *JOURNAL OF SPECTRAL THEORY*
  Vasy, A.
  2014; 4 (4): 643-673
- **Non-trapping estimates near normally hyperbolic trapping** *MATHEMATICAL RESEARCH LETTERS*
  Hintz, P., Vasy, A.
  2014; 21 (6): 1277-1304
- **Spectral theory for the Weil-Petersson Laplacian on the Riemann moduli space** *COMMENTARII MATHEMATICI HELVETICI*
  Ji, L., Mazzeo, R., Mueller, W., Vasy, A.
  2014; 89 (4): 867-894
- **Morawetz estimates for the wave equation at low frequency** *MATHEMATISCHE ANNALEN*
  Vasy, A., Wunsch, J.
  2013; 355 (4): 1221-1254
- **A correction to "Propagation of singularities for the wave equation on manifolds with corners"** *ANNALS OF MATHEMATICS*
  Vasy, A.
  2013; 177 (2): 783-785
- **MULTISCALE DISCRETE APPROXIMATIONS OF FOURIER INTEGRAL OPERATORS ASSOCIATED WITH CANONICAL TRANSFORMATIONS AND CAUSTICS** *MULTISCALE MODELING & SIMULATION*
  de Hoop, M. V., Uhlmann, G., Vasy, A., Wendt, H.
  2013; 11 (2): 566-585
- **Diffraction of singularities for the wave equation on manifolds with corners** *Astérisque*
  Melrose, R., Wunsch, J., Vasy, A.
  2013; 351: 136
- **DIFFRACTION OF SINGULARITIES FOR THE WAVE EQUATION ON MANIFOLDS WITH CORNERS** *ASTERISQUE*
  Anonymous
  2013: 1-?

- **SEMICLASSICAL RESOLVENT ESTIMATES AT TRAPPED SETS** *ANNALES DE L INSTITUT FOURIER*
  Datchev, K., Vasy, A.
  2012; 62 (6): 2379-2384
- **THE WAVE EQUATION ON ASYMPTOTICALLY ANTI DE SITTER SPACES** *ANALYSIS & PDE*
  Vasy, A.
  2012; 5 (1): 81-144
- **Microlocal analysis of asymptotically hyperbolic spaces and high energy resolvent estimates** *In Inverse problems and applications*
  Vasy, A.
  edited by Uhlmann, G.
  Cambridge University Press, MSRI Publications.2012: 31
- **Gluing Semiclassical Resolvent Estimates via Propagation of Singularities** *INTERNATIONAL MATHEMATICS RESEARCH NOTICES*
  Datchev, K., Vasy, A.
  2012: 5409-5443
- **PROPAGATION THROUGH TRAPPED SETS AND SEMICLASSICAL RESOLVENT ESTIMATES** *ANNALES DE L INSTITUT FOURIER*
  Datchev, K., Vasy, A.
  2012; 62 (6): 2347-2377
- **THE WAVE EQUATION ON ASYMPTOTICALLY ANTI DE SITTER SPACES** *ANALYSIS & PDE*
  Vasy, A.
  2012; 5 (1): 81-144
- **Positive commutators at the bottom of the spectrum** *JOURNAL OF FUNCTIONAL ANALYSIS*
  Vasy, A., Wunsch, J.
  2010; 259 (2): 503-523
- **The wave equation on asymptotically de Sitter-like spaces** *ADVANCES IN MATHEMATICS*
  Vasy, A.
  2010; 223 (1): 49-97
- **Diffraction at Corners for the Wave Equation on Differential Forms** *COMMUNICATIONS IN PARTIAL DIFFERENTIAL EQUATIONS*
  Vasy, A.
  2010; 35 (7): 1236-1275
- **Gluing semiclassical resolvent estimates, or the importance of being microlocal** *Oberwolfach Reports*
  Datchev, K., Vasy, A.
  2010; 7 (2): 1648-1651
- **Diffraction at corners for the wave equation on differential forms** *Comm. in PDEs*
  Vasy, A.
  2010; 35: 1236-1275
- **SEMICLASSICAL SECOND MICROLOCAL PROPAGATION OF REGULARITY AND INTEGRABLE SYSTEMS** *JOURNAL D ANALYSE MATHEMATIQUE*
  Vasy, A., Wunsch, J.
  2009; 108: 119-157
- **Propagation of singularities for the wave equation on manifolds with corners** *ANNALS OF MATHEMATICS*
  Vasy, A.
  2008; 168 (3): 749-812
- **DIFFRACTION BY EDGES** *International Conference on Inversese Quantum Scattering Theory*
  Vasy, A.
  WORLD SCIENTIFIC PUBL CO PTE LTD.2008: 2287–2328
- **Propagation of singularities for the wave equation on edge manifolds** *DUKE MATHEMATICAL JOURNAL*
  Melrose, R., Vasy, A., Wunsch, J.

2008; 144 (1): 109-193

- **MICROLOCAL PROPAGATION NEAR RADIAL POINTS AND SCATTERING FOR SYMBOLIC POTENTIALS OF ORDER ZERO** *ANALYSIS & PDE*
  Hassell, A., Melrose, R., Vasy, A.
  2008; 1 (2): 127-196
- **Scattering for symbolic potentials of order zero and microlocal propagation near radial points** *Analysis & PDE*
  Hassell, A., Melrose, R., Vasy, A.
  2008; 1: 127-196
- **Scattering theory on SL(3)/SO(3): Connections with quantum 3-body scattering** *PROCEEDINGS OF THE LONDON MATHEMATICAL SOCIETY*
  Mazzeo, R., Vasy, A.
  2007; 94: 545-593
- **Geometric optics and the wave equation on manifolds with corners** *10th International Conference on Differential Equations and Mathematical Physics*
  Vasy, A.
  AMER MATHEMATICAL SOC.2006: 315–333
- **Geometric optics and the wave equation on manifolds with corners** *Contemp. Math.*
  Vasy, A.
  2006; 412: 315-333
- **Analytic continuation of the resolvent of the Laplacian on symmetric spaces of noncompact type** *JOURNAL OF FUNCTIONAL ANALYSIS*
  Mazzeo, R., Vasy, A.
  2005; 228 (2): 311-368
- **Absence of super-exponentially decaying eigenfunctions on Riemannian manifolds with pinched negative curvature** *MATHEMATICAL RESEARCH LETTERS*
  Vasy, A., Wunsch, J.
  2005; 12 (5-6): 673-684
- **Lipschitz domains, domains with corners, and the Hodge Laplacian** *COMMUNICATIONS IN PARTIAL DIFFERENTIAL EQUATIONS*
  Taylor, M., Mitrea, M., Vasy, A.
  2005; 30 (10): 1445-1462
- **Analytic continuation of the resolvent of the Laplacian on SL(3)/SO(3)** *AMERICAN JOURNAL OF MATHEMATICS*
  Mazzeo, R., Vasy, A.
  2004; 126 (4): 821-844
- **Inverse scattering with fixed energy for dilation-analytic potentials** *INVERSE PROBLEMS*
  Vasy, A., Wang, X. P.
  2004; 20 (4): 1349-1354
- **Complex powers and non-compact manifolds** *COMMUNICATIONS IN PARTIAL DIFFERENTIAL EQUATIONS*
  Ammann, B., Lauter, R., Nistor, V., Vasy, A.
  2004; 29 (5-6): 671-705
- **Exponential decay of eigenfunctions in many-body type scattering with second-order perturbations** *JOURNAL OF FUNCTIONAL ANALYSIS*
  Vasy, A.
  2004; 209 (2): 468-492
- **Spectral and scattering theory for symbolic potentials of order zero** *ADVANCES IN MATHEMATICS*
  Hassell, A., Melrose, R., Vasy, A.
  2004; 181 (1): 1-87
- **Inverse problems in N-body scattering** *Inverse Problems and Spectral Theory*
  Uhlmann, G., Vasy, A.
  edited by Isozaki, H.

2004

- **Geometry and analysis in many-body scattering. Inside-out: Inverse problems** *Math. Sci. Res. Inst. Publ*
  Vasy, A.
  2003; 47: 333-379
- **Low-energy inverse problems in three-body scattering** *INVERSE PROBLEMS*
  Uhlmann, G., Vasy, A.
  2002; 18 (3): 719-736
- **Resolvents and Martin boundaries of product spaces** *GEOMETRIC AND FUNCTIONAL ANALYSIS*
  Mazzeo, R., Vasy, A.
  2002; 12 (5): 1018-1079
- **Smoothness and high energy asymptotics of the spectral shift function in many-body scattering** *COMMUNICATIONS IN PARTIAL DIFFERENTIAL EQUATIONS*
  Vasy, A., Wang, X. P.
  2002; 27 (11-12): 2139-2186
- **Fixed energy inverse problem for exponentially decaying potentials** *Methods Appl. Anal*
  Uhlmann, G., Vasy, A.
  2002; 9: 239-248
- **Propagation of singularities in many-body scattering in the presence of bound states** *JOURNAL OF FUNCTIONAL ANALYSIS*
  Vasy, A.
  2001; 184 (1): 177-272
- **Intersecting Legendrians and blow-ups** *MATHEMATICAL RESEARCH LETTERS*
  Hassell, A., Vasy, A.
  2001; 8 (4): 413-428
- **Propagation of singularities in many-body scattering** *ANNALES SCIENTIFIQUES DE L ECOLE NORMALE SUPERIEURE*
  Vasy, A.
  2001; 34 (3): 313-402
- **The resolvent for Laplace-type operators on asymptotically conic spaces** *ANNALES DE L INSTITUT FOURIER*
  Hassell, A., Vasy, A.
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- **Symbolic functional calculus and N-body resolvent estimates** *JOURNAL OF FUNCTIONAL ANALYSIS*
  Hassell, A., Vasy, A.
  2000; 173 (2): 257-283
- **Semiclassical estimates in asymptotically Euclidean scattering** *COMMUNICATIONS IN MATHEMATICAL PHYSICS*
  Vasy, A., Zworski, M.
  2000; 212 (1): 205-217
- **Propagation of singularities in three-body scattering** *Asterisque*
  Vasy, A.
  2000; 262
- **Propagation of singularities in three-body scattering** *ASTERISQUE*
  Vasy, A.
  2000: III-?
- **Scattering matrices in many-body scattering** *COMMUNICATIONS IN MATHEMATICAL PHYSICS*
  Vasy, A.
  1999; 200 (1): 105-124
- **The spectral projections and the resolvent for scattering metrics** *JOURNAL D ANALYSE MATHEMATIQUE*
  Hassell, A., Vasy, A.

1999; 79: 241-298

- **Geometric scattering theory for long-range potentials and metrics** *INTERNATIONAL MATHEMATICS RESEARCH NOTICES*
  Vasy, A.
  1998: 285-315
- **Structure of the resolvent for three-body potentials** *DUKE MATHEMATICAL JOURNAL*
  Vasy, A.
  1997; 90 (2): 379-434
- **Asymptotic behavior of generalized eigenfunctions in N-body scattering** *JOURNAL OF FUNCTIONAL ANALYSIS*
  Vasy, A.
  1997; 148 (1): 170-184
- **Scattering poles for negative potentials** *COMMUNICATIONS IN PARTIAL DIFFERENTIAL EQUATIONS*
  Vasy, A.
  1997; 22 (1-2): 185-194