

# CURRICULUM VITAE

Toan T. Nguyen

## Education

2009	Ph.D. in Mathematics	Indiana University
2006	M.Sc. in Mathematics	University of Texas at San Antonio
2002	B.Sc. in Mathematics	Vietnam National University at Hochiminh city

## Employment

2018 –	Associate Professor, Pennsylvania State University
2013 – 2018	Assistant Professor, Pennsylvania State University
2010 – 2012	Prager Assistant Professor, Brown University
2009 – 2010	Postdoctoral Research Fellow, Université Pierre et Marie Curie

## Honors and Awards

2019	Simons Fellowship in Mathematics
2018	Centennial Fellowship, American Mathematical Society
2009	Postdoctoral Research Fellowship, Fondation Sciences Mathématiques de Paris
2008	William B. Wilcox Mathematics Award, Indiana University
2011 –	NSF Standard Grants (sole PI): DMS-1108821 (2011-2014), DMS-1405728 (2014-2018), DMS-1764119 (2018-2021), DMS-2054726 (2021-2024)

## Visiting Positions

2018 - 2020	Visiting Fellow, Mathematics Department and PACM, Princeton University
2019 June	Visiting Researcher, Université Paris-Diderot, IMJ, Paris, France
2018 July	Invited Professor, Observatoire de la Cote d'Azur, Nice, France
2017 June	Invited Professor, Université Paris-Sud, Orsay, France
2017 May	Visitor, École Normale Supérieure de Lyon, Lyon, France
2017 Spring	Long-term Visitor, ICERM, Brown University
2016 June	Senior Researcher, École polytechnique, CMLS, Palaiseau, France
2016 May	Visitor, École Normale Supérieure de Lyon, Lyon, France
2015 May-June	Senior Researcher, École polytechnique, CMLS, Palaiseau, France
2014 June	Visitor, Université Paris-Diderot, IMJ, Paris, France
2012 June	Visitor, Université Paris-Diderot, IMJ, Paris, France

## Advising and Mentoring

*Postdoctoral Fellows:* Seok Hyun Hong (2017-2018)

*PhD Students:* Trinh T. Nguyen (2020, currently postdoc at USC)

*Master Students:* Pedro Jaramillo (Fall 2018, visiting from ENS de Lyon)

*Undergraduate Research Students:* Fengyuan Zhang (2021), Trinh Nguyen (Saigon, 2014-2015), Khang Huynh (Saigon, 2014-2015)

## Editorial Board

Kinetic & Related Models  
SIAM Journal on Mathematical Analysis  
Communications in Mathematical Analysis and Applications

## Professional Memberships

American Mathematical Society

## Research Interests

Analysis of PDEs, Fluid Dynamics, Kinetic Theory, General Relativity

## Professional Service

- **Service at Penn State:**

*Graduate Studies Committee*, Department of Mathematics, 2017 – 2018

*Policy Committee*, Department of Mathematics, 2015 – 2016

*GTA Oversight Committee*, Department of Mathematics, 2013 – 2016, 2020 – present

*Student Awards Committee*, Department of Mathematics, 2013 – 2016

*Dissertation Committee Member* for Nikita Lukyanov (Mathematics, 2016), Qingtian Zhang (Mathematics, 2014 - 2016), Grant Skidmore (Aerospace Engineering, 2014 - 2016)

- **Seminar and Conference Organization:**

*CAM Colloquium Organizer*, Department of Mathematics, Penn State, 2013 – 2014, 2020 – present

*Seminar Organizer*, PDE Seminar (Penn State, 2018, 2022 - present), Lefschetz Center for Dynamical Systems Seminar (Brown, 2011-2012), Brown–Paris 6 Joint Video-Conference Seminar (Brown, Spring 2011).

*Working Seminar Leader at Penn State*, Spring 2015 (convex integration), Fall 2016 (rotating fluids), Fall 2017 (weak turbulence theory)

*Conference Organizer*, “Summer Meeting 2014”, University of Science, Saigon, Aug 10-11, 2014.

*Summer School Organizer*, “PDE and Applied Mathematics”, VIASM, Hanoi, July 14 - Aug 7, 2014.

*Minisymposium Organizer*, “Fluid-structure interactions”, the 7th ICIAM, Vancouver, Canada, July 2011.

*Minisymposium Organizer*, “Nonlinear waves”, the SIAM DS11 conference, Snowbird, Utah, May 2011.

*Conference Organizer*, “Inaugural Summer Meeting 2008”, University of Science, Saigon, July 13, 2008.

- **Community Service:**

*NSF Panelist*, 2019, 2020.

*Active Referee for* Annals of Mathematics, Annals of Mathematics Studies, Acta Mathematica, Inventiones Mathematicae, Journal of the American Mathematical Society, Journal of the European Mathematical Society, Annales Scientifiques de l'École Normale Supérieure, Annals of PDE, Duke Mathematical Journal, Acta App. Math; Acta Mathematica Vietnamica; Advances in Math; Analysis & PDE; Archive for Rational Mechanics and Analysis; Asymptotic Analysis; Comm. Math. Phys.; Communication in Mathematical Sciences; Discrete and Cont. Dyn. Systems - Series A; Elect. J. Diff Eqs.; Indiana Math J.; Journal of London Mathematical Society; Journal of Functional Analysis; J. école polytechnique; J. Differential Equations; Journal of Evolution Equations; Journal of Mathematical Analysis and Applications; Journal de Mathématiques Pures et Appliquées; Journal of Mathematical Physics; Kinetic and Related Models; Letters in Mathematical Physics; Nonlinear Analysis; Peking Mathematical Journal; Physica D: Nonlinear Phenomena; Probability and Mathematical Physics; Quarterly of Applied Mathematics; Reviews in Mathematical Physics; SIAM J. Math. Analysis; Transactions of AMS; Zeitschrift fuer Angewandte Mathematik und Physik, Water Waves, among others.

## Teaching Experience

- **Penn State University**

Spring 2022, Math 514, Partial Differential Equations II (Graduate)  
Fall 2021, Math 230, two sections, Calculus and Vector Analysis  
Spring 2021, Math 412, Fourier Series and Partial Differential Equations  
Fall 2020, Math 230, two sections, Calculus and Vector Analysis  
Spring 2018, Math 441, Matrix Algebra  
Fall 2017, Math 597C, Kinetic Theory of gases (Graduate topics course that I design).  
Fall 2017, Math 140H, Honors Calculus I  
Fall 2016, Math 230, two sections, Calculus and Vector Analysis  
Spring 2016, Math 230, Calculus and Vector Analysis  
Spring 2016, Math 505, Mathematical fluid mechanics (Graduate)  
Fall 2015, MATH 513: Partial Differential Equations I (Graduate)  
Spring 2015, MATH 597F, Boundary layers in fluid dynamics (Graduate topics course that I design)  
Fall 2014, MATH 230, Calculus and Vector Analysis  
Spring 2014, MATH 412, Fourier Series and Partial Differential Equations  
Fall 2013, MATH 411, Ordinary Differential Equations  
Spring 2013, MATH 441, Matrix Algebra

- **Brown University**

Fall 2012, APMA 0360, Methods of Applied Mathematics II  
Spring 2012, APMA 0360, Methods of Applied Mathematics II  
Fall 2011, APMA2210: Boltzmann Equations and Hydrodynamics Limits (Graduate topics course that I design)  
Spring 2011, APMA 0340, Methods of Applied Mathematics II  
Fall 2010, APMA2210: Boundary Layers in Gas Dynamics (Graduate topics course that I design)

# Invited Lectures

Toan T. Nguyen

## Lectures at Congress

2021 Aug International Congress of Mathematical Physics, PDE section, Geneva

## Lecture Series and Minicourses:

2021 Sep Lecture series on Kinetic Theory of a Plasma, Vietnam Academy of Science and Technology  
2018 Dec Lecture series at Workshop on Boundary Layers Theory, Shanghai Jiao Tong University  
2016 July Mini-course on Fluids at a High Reynolds number, Vietnam Institute for Advanced Study in Mathematics, Hanoi  
2014 July Mini-course on Boundary Layer Theory at Summer School in PDEs and Applied Mathematics, Vietnam Institute for Advanced Study in Mathematics, Hanoi  
2013 July Topics course (20 hours) on Stability of Traveling Waves at the 2013 Peking Applied Mathematics Summer School, Peking University

## Plenary Lectures at Conferences / Workshops:

2022 Feb Workshop on Fluid Models and Turbulence, Newton Institute, Cambridge, UK  
2021 Sep V Workshop on Fluids and PDE, Unicamp, Campinas, Brazil  
2020 Dec The 5th NEPDE conference, Shanghai Jiao Tong University  
2020 Sep Workshop on Euler and Navier-Stokes Equations, the Fields Institute, Canada  
2020 May Conference on Long Time Behavior and Singularity Formation in PDEs, NYU Abu Dhabi  
2019 Sep Workshop on Formation of small scales in nonlinear PDEs, CSCAMM, Maryland University  
2019 July The 60th birthday conference in honor of Kevin Zumbrun, Institut Henri Poincaré, Paris  
2019 March Midwest PDE Seminar (83rd edition), Indiana University  
2018 Dec Workshop on PDEs, University of Pittsburgh  
2018 June Southern California Analysis and PDE Conference, UC San Diego  
2018 May The 80th birthday conference in honor of Walter Strauss, Brown University  
2017 Dec Workshop on Cosmology and Plasma Physics, Wolfgang Pauli Institute, Vienna, Austria  
2017 April Workshop on Water Waves, ICERM, Brown  
2017 Feb Workshop on Dynamics of small scales in fluids, ICERM, Brown  
2016 Feb Conference on Advances in kinetic and fluid dynamics transport, ICES, UT Austin  
2015 Dec Workshop on Euler and Navier-Stokes, Wolfgang Pauli Institute, Vienna  
2015 Dec Workshop on Vlasov-Poisson in cosmology, Wolfgang Pauli Institute, Vienna  
2015 Sep Conference on Recent Progress in Collisionless Models, Imperial College, London  
2015 Aug Summer school on “Schrödinger equations”, Wolfgang Pauli Institute, Vienna  
2015 June Conference on Shock waves and beyond, IHP, Paris  
2015 Feb RTG Undergraduate Workshop in PDEs, Brown  
2013 Oct The 13th Red Raider Mini-Symposium on “Aspects of Fluid Dynamics”, Texas Tech Univ.  
2012 May Workshop on Analysis and applications of evolutionary PDEs, UC Riverside  
2012 March Spring School on Kinetic Theory and Fluid Mechanics, Lyon, France

## Invited Seminars / Colloquia at Research Institutions:

2021 Dec University of Potsdam, Mathematics Colloquium  
2021 Nov Johns Hopkins University, Analysis and PDEs  
2021 Oct UTSA, Applied Math Seminar  
2021 Oct NC State at Charlotte, Mathematics Colloquium  
2021 June Ecole polytechnique, CMLS, SALVE Seminar  
2021 April University College London / Imperial College London, Pure Analysis and PDE Seminar  
2021 April University of Zurich / ETH Zurich, PDE and Mathematical Physics Seminar  
2021 April Caltech, Analysis Seminar  
2020 Nov City University of Hong Kong, PDE lectures  
2020 Oct Texas A&M, Nonlinear PDEs Seminar  
2020 Oct Yale, Analysis Seminar

2020 Sep Penn State, CAM Colloquium  
 2020 May Stanford, Analysis and PDE Seminar  
 2020 May Shanghai Tech University, IMS PDE seminar  
 2020 May Shanghai Jiao Tong University, INS colloquium  
 2020 Jan UC San Diego, Analysis seminar  
 2019 June Joint ENS Paris / Paris 6 / Paris 7 Analysis and PDEs seminar  
 2019 April Rutgers University, Nonlinear Analysis seminar  
 2019 Feb Princeton, Analysis seminar  
 2018 Sep University of Pennsylvania, Analysis seminar  
 2018 April Universität Leipzig, Mathematisches Institut, Analysis seminar  
 2018 April Max Planck Institute, Oberseminar  
 2018 April Georgia Institute of Technology, PDE seminar  
 2018 March Princeton, Analysis of Fluids seminar  
 2018 March Carnegie Mellon, CNA seminar  
 2018 Feb Penn State, CCMA Luncheon Seminar  
 2017 Sep Rutgers University, Nonlinear Analysis seminar  
 2017 July Central China Normal University, Wuhan, PDE seminar  
 2017 June University of Paris Sud (Paris 11), Math at Orsay, PDE seminar  
 2017 June Southern Univ of Science and Technology, Shenzhen, China, Math and Engineering seminar  
 2017 June Univ of Natural Sciences, Hochiminh city, PDE seminar  
 2017 April ICERM, Brown University, semester program lecture  
 2017 Feb Maryland, CSCAMM seminar  
 2016 Nov Penn State, Complex fluids seminar  
 2016 Oct Courant, NYU, Analysis seminar  
 2015 Oct Penn State, Hyperbolic PDEs  
 2015 May Oxford, Math Institute, PDE CDT seminar  
 2015 May Institut des Hautes Études Scientifiques (IHES), Laurent Schwartz PDE seminar  
 2015 April Carnegie Mellon, CNA seminar  
 2015 Feb Penn State, Fluid Dynamics Research Consortium seminar  
 2014 Dec Princeton, Analysis of Fluids seminar  
 2014 Oct Univ Michigan, Differential Equations seminar  
 2014 Oct Penn State, Math colloquium  
 2014 Oct Univ of Illinois at Urbana-Champaign, Harmonic Analysis and Diff. Equations seminar  
 2014 June Institut Henri Poincaré, joint PDE seminar between Paris 6, Paris 7, and ENS  
 2014 March Univ. Tennessee, math colloquium  
 2014 Feb Brown Univ, PDE seminar  
 2013 Nov Drexel University, PDE and Applied Math seminar  
 2013 July Shanghai Jiao Tong University, PDE seminar  
 2013 March Indiana University, PDE seminar  
 2013 Feb University of Pittsburgh, PDE seminar  
 2012 Aug Univ of Natural Sciences, Hochiminh city, PDE seminar  
 2012 Aug Seoul National University, PDE seminar  
 2012 June Université Paris–Dauphine, Analyse et Probabilités  
 2012 April United States Naval Academy, Colloquium  
 2012 April UNC - Chapel Hill, Analysis / PDE seminar  
 2012 Feb Univ. Michigan, Differential equations seminar  
 2012 Jan Univ Illinois at Chicago, Mathematics Colloquium  
 2012 Jan Penn State, Mathematics Colloquium  
 2012 Jan Michigan State, Mathematics Colloquium  
 2011 Dec Univ. Wisconsin at Madison, Mathematics Colloquium  
 2011 Nov Georgia Tech, PDE seminar  
 2011 Nov Penn State, Computational and Applied Mathematics Colloquium  
 2011 Nov Texas A & M, Applied Math Seminar  
 2011 Nov UT Austin, Analysis seminar  
 2010 Sep University of Maryland (College Park), PDE/Applied Math seminar  
 2010 Sep Brown University, Brown/Boston PDE seminar  
 2010 Sep Brown University, Math department, PDE seminar  
 2010 June IIMAS–UNAM, Mexico, Applied Math Colloquium

2010 March IRMAR, Rennes I, PDE seminar  
 2010 March Brown/Paris 6 video-conference seminar, Laboratoire J-L. Lions, Paris  
 2010 March l'Institut Fourier (Grenoble I), Séminaire de Physique Mathématique  
 2009 Nov Ecole polytechnique, Séminaire X-EDP  
 2009 Oct Institut Math. de Jussieu (Paris VI-VII), Analyse non-linéaire et EDP seminar  
 2009 Jan Columbia University, Applied Mathematics Colloquium  
 2008 Nov Univ. Illinois at Urbana-Champaign, Harmonic Analysis and Math. Phys. seminar  
 2008 Sep Indiana University, IU PDE seminar

### Short Mini-symposium Lectures at Conferences:

2019 July Special session on *Recent advances in hydrodynamic stability* at Equadiff 2019, Leiden University  
 2014 July Special session SS11 on *Dynamics of Fluids and Nonlinear Waves*, The 10th AIMS conference on Dynamical System and Differential Equations, Madrid  
 2014 July Special session SS43 on *Harmonic Analysis Tools for Fluid Mechanics*, The 10th AIMS conference on Dynamical System and Differential Equations, Madrid  
 2013 Oct Special session on *PDEs of Fluid Dynamics*, the AMS meeting in St. Louis  
 2013 March Special session on *Stability of nonlinear waves: what's next*, the 8th IMACS International Conference, the University of Georgia  
 2011 May Special session on *Stability of nonlinear waves* at SIAM Conference on Dynamical Systems (DS11), Snowbird, Utah. May 2011 (also an organizer of a special session)  
 2009 May Special session on *Stability of Traveling Waves* at SIAM Conference on Dynamical Systems (DS09), Snowbird, Utah

# Publications

Toan T. Nguyen

## Books

- *Stability of Prandtl's boundary layers*, (w/ E. Grenier), 300 pp. Preliminary review for *Springer Books*, 2017. arXiv:2008.00887.

## Papers submitted for publication

4. *The Vlasov–Poisson–Landau system in the weakly collisional regime* with S. Chaturvedi and J. Luk. arXiv:2104.05692
3. *Green function for linearized Navier-Stokes around a boundary shear layer profile for long wavelengths* with E. Grenier. arXiv:1910.03988
2. *Nonlinear stability of source defects in oscillatory media* with M. Beck, B. Sandstede, and K. Zumbrun. arXiv:1802.07676
1. *Green function for linearized Navier-Stokes around a boundary layer profile: near critical layers* with E. Grenier. arXiv:1705.05323

## Publications

53. *The inviscid limit for the 2d Navier-Stokes equations in bounded domains*, with C. Bardos, Trinh Nguyen, E. Titi. **Kinetic and Related Models**, to appear.
52. *Plasma echoes near stable Penrose data*, with E. Grenier and I. Rodnianski. **SIAM J. Math. Anal.**, to appear.
51. *On the linearized Vlasov-Poisson system on the whole space around stable homogeneous equilibria*, with D. Han-Kwan and F. Rousset. **Communications in Math Physics**, to appear
50. *Landau damping for analytic and Gevrey data*, with E. Grenier and I. Rodnianski. **Mathematical Research Letters**, to appear
49. *On nonlinear instability of Prandtl's boundary layers: the case of Rayleigh's stable shear flows*, w/ E. Grenier **J. Math. Pures et Appliquées**, to appear
48. *Asymptotic stability of equilibria for screened Vlasov-Poisson systems via pointwise dispersive estimates*, with D. Han-Kwan and F. Rousset. **Annals of PDE**, 7 (2021), Paper No. 18, 37 pp.
47. *Generator functions and their applications*, with E. Grenier. **Proceedings of AMS, Series B**, 8 (2021), 245-251.
46. *Sharp bounds on linear semigroup of Navier Stokes with boundary layer norms*, with E. Grenier. **J. Differential Equations** 269 (2020), no. 11, 9384-9403.
45. *On global stability of optimal rearrangement maps*, with H. Q. Nguyen **Arch. Ration. Mech. Anal.**, 238 (2020), no. 2, 671-704.
44.  *$L^\infty$  instability of Prandtl layers*, with E. Grenier **Annals of PDE**, 5 (2019), no. 2, Paper No. 18, 36 pp.
43. *Linear inviscid damping and enhanced viscous dissipation of shear flows by using the conjugate operator method* with E. Grenier, F. Rousset, and A. Soffer **Journal of Functional Analysis** 278 (2020), no. 3, 108339, 27 pp.
42. *Onsager type conjecture and renormalized solutions for the relativistic Vlasov Maxwell*, w/ C. Bardos and N. Besse **Quarterly of Applied Mathematics**, 78 (2020), no. 2, 193-217.

41. *The inviscid limit of Navier-Stokes equations for vortex-wave data on  $\mathbb{R}^2$* , with Trinh Nguyen  
**SIAM J. Math. Anal.**, 51 (2019), no. 3, 2575–2598.
40. *Green function of Orr Sommerfeld equations away from critical layers*, with E. Grenier  
**SIAM J. Math. Anal.**, 51 (2019), no. 2, 1279-1296.
39. *The inviscid limit of Navier-Stokes equations for analytic data on the half-space*, with Trinh Nguyen  
**Arch. Ration. Mech. Anal.**, 230 (2018), no. 3, 1103-1129.
38. *Long time estimates in the non-relativistic regime of the Vlasov-Maxwell system*, with D. Han-Kwan and F. Rousset.  
**Comm. Math. Phys.**, 363 (2018), no. 2, 389-434
37. *Sublayer of Prandtl boundary layers*, with E. Grenier.  
**Arch. Ration. Mech. Anal.**, 229 (2018), no. 3, 1139-1151.
36. *The onset of instability in first order systems*, with N. Lerner and B. Texier  
**Journal of the European Math. Society**, 20 (2018), no. 6, 1303-1373.
35. *On the kinetic equation in Zakharov’s wave turbulence theory for capillary waves*, with M.-B. Tran.  
**SIAM J. Math. Anal.**, 50 (2018), no. 2, 2020-2047.
34. *Uniform in time lower bound for solutions to a Quantum Boltzmann of bosons*, with M.-B. Tran  
**Arch. Ration. Mech. Anal.**, to appear, online 27 June 2018.
33. *The Maxwell-Boltzmann approximation for ion kinetic modeling*, w/ C. Bardos, F. Golse, and R. Sentis.  
**Physica D: Nonlinear Phenomena**, 376/377 (2018), 94-107.
32. *The vanishing viscosity limit for 2D Navier-Stokes in a rough domain*, w/ D. Gerard-Varet, C. Lacave, F. Rousset.  
**J. Math. Pures et Appliquées**, (9) 119 (2018), 45–84.
31. *Prandtl boundary layer expansions of steady Navier-Stokes over a moving plate*, with Y. Guo.  
**Annals of PDEs**, 3 (2017), no. 1, Art. 10, 58 pp.
30. *Instabilities in the mean field limit*, with D. Han-Kwan  
**Journal of Statistical Physics**, 162 (2016), no. 6, 1639-1653.
29. *Illposedness of the hydrostatic Euler and singular Vlasov equations*, with D. Han-Kwan  
**Arch. Ration. Mech. Anal.**, 221 (2016), no. 3, 1317-1344.
28. *Instability of Vlasov-Maxwell systems in the classical and quasineutral limits*, with D. Han-Kwan  
**SIAM J. Math. Anal.**, 48 (2016), no. 5, 3444-3466
27. *Remarks on the inviscid limit for compressible flows*, with C. Bardos.  
**Contemporary Mathematics**, American Mathematical Society, 2016.
26. *Spectral instability of symmetric shear flows in a two-dimensional channel*, w/ E. Grenier and Y. Guo.  
**Advances in Math**, 292 (2016), pp. 52–110.
25. *Spectral instability of characteristic boundary layer flows*, with E. Grenier and Y. Guo.  
**Duke Math J.**, 165 (2016), no. 16, 3085-3146
24. *Global magnetic confinement for the 1.5D Vlasov-Maxwell system*, with T.V. Nguyen and W.A. Strauss.  
**Kinetic and Related Models**, 8 (2015), no. 1, 153-168.
23. *Spectral stability of Prandtl boundary layers: an overview*, with E Grenier and Y. Guo  
**Analysis (Berlin)** 35 (2015), no. 4, 343-355.
22. *Nonlinear stability of source defects in the complex Ginzburg-Landau equation*, with M. Beck, B. Sandstede, and K. Zumbrun.  
**Nonlinearity**, 27 (2014) 739-786
21. *Topography influence on the Lake equations in bounded domains*, with C. Lacave and B. Pausader,  
**J. Math. Fluid Mech.**, 16 (2014), no. 2, 375–406.
20. *Stability Analysis of a Hot Plasma in a Solid Torus*, with W. A. Strauss,  
**Arch. Ration. Mech. Anal.**, 211 (2014), no. 2, 619-672.



19. *Stability analysis of collisionless plasmas with specularly reflecting boundary*, with W. A. Strauss  
**SIAM J. Math. Anal.**, 45(2013), no. 2, 777–808.
18. *Boundary layers interactions in the plane parallel incompressible flows* (with F. Sueur)  
**Nonlinearity**, 25 (2012) 3327–3342.
17. *Toward nonlinear stability of sources via a modified Burgers* (with Beck, Sandstede, and Zumbrun)  
**Physica D**, 241 (2012), no. 4, 382–392.
16. *Multi-dimensional stability of Lax shocks in hyperbolic-elliptic coupled systems*  
**Journal of Differential Equations**, 252 (2012), no. 1, 382–411.
15. *Remarks on the ill-posedness of the Prandtl equation* (with D. Gérard-Varet)  
**Asymptotic Analysis**, 77 (2012), no. 1-2, 71–88.
14. *A note on the Prandtl boundary layers* (with Y. Guo)  
**Comm. Pure Appl. Math.**, 64 (2011), no. 10, 1416–1438.
13. *Long-time stability of multi-dimensional noncharacteristic viscous boundary layers* (with K. Zumbrun)  
**Comm. Math. Phys.**, 299 (2010), no. 1, 1–44.
12. *On asymptotic stability of noncharacteristic viscous boundary layers.*  
**SIAM J. Math. Anal.**, 42 (2010), no. 3, 1156–1178
11. *Stability of radiative shock profiles for hyperbolic-elliptic coupled systems* (w/ R. Plaza and K. Zumbrun)  
**Phys. D** 239 (2010), no. 8, 428–453.
10. *Stability of scalar radiative shock profiles* (with C. Lattanzio, C. Mascia, R. Plaza, and K. Zumbrun)  
**SIAM J. Math. Anal.** 41 (2009/10), no. 6, 2165–2206.
9. *Stability of multi-dimensional viscous shocks for symmetric systems with variable multiplicities.*  
**Duke Math. J.** 150 (2009), no. 3, 577–614.
8. *Long-time stability of large-amplitude noncharacteristic boundary layers of general hyperbolic-parabolic conservation laws* (with K. Zumbrun)  
**J. Math. Pures Appl.** (9) 92 (2009), no. 6, 547–598.
7. *Spectral stability of noncharacteristic isentropic Navier–Stokes boundary layers* (with N. Costanzino, J. Humpherys, and K. Zumbrun)  
**Arch. Ration. Mech. Anal.** 192 (2009), no. 3, 537–587.
6. *Regularity and coexistence problems for strongly coupled elliptic systems* (with D. Le and L. Nguyen)  
**Indiana Univ. Math. J.**, 56 (2007), no. 4, 1749–1791
5. *Global attractors and uniform persistence for cross diffusion parabolic systems* (with D. Le)  
**Dyn. Sys. and Apps.** 16 (2007), no. 2, 361–377.
4. *Everywhere regularity for degenerate cross diffusion systems* (with D. Le)  
**Comm. in PDEs**, 31 (2006), no. 1-3, 307–324.
3. *Persistence for a class of triangular cross diffusion parabolic systems* (with D. Le)  
**Adv. Non. Stud.**, 5 (2005), no. 4, 493–514.
2. *Global existence for a class of triangular parabolic systems on domains of arbitrary dim.* (with D. Le)  
**Proc. of AMS**, 133(2005), 1985–1992.
1. *Shigesada-Kawasaki-Teramoto model on higher dimensional domains* (with D. Le and L. Nguyen)  
**Elec. J. Diff. Eqs.**, 2003, No. 72.

## Proceeding Papers

2. E. Grenier, Y. Guo, and T. Nguyen, on the spectral instability of parallel shear flows.  
**Séminaire Laurent Schwartz - EDP et applications** (2014-2015), Exp. No. 22, 14 pp.
1. T. Nguyen and K. Zumbrun, *Long-time stability of noncharacteristic viscous boundary layers.*  
**Séminaire Laurent Schwartz - EDP et applications** (2009-2010), Exp. No. VI, 15 pp.