

## Lou Kondic

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### *APPOINTMENTS*

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#### **Department of Mathematical Sciences of NJIT**

Director of Graduate Program	9/07-present
<b>New Jersey Institute of Technology</b> , Associate Professor	9/02-present
<b>New Jersey Institute of Technology</b> , Assistant Professor	7/99-8/02
<b>Duke University</b> , Research Associate	9/97-7/99
<b>Courant Institute of Mathematical Sciences</b> , New York University, Research Associate	9/95-9/97

### *SHORT-TERM AND NONACADEMIC APPOINTMENTS*

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<b>The Kavli Institute for Theoretical Physics</b> , University of California at Santa Barbara, Visiting Scholar	01/05-08/07
<b>Institute of Physics, UNCPBA, Tandil, Argentina</b> , Fulbright Visiting Professor	02/06-05/06
<b>The Courant Institute, New York University</b> , Visiting Professor	09/05-01/06
<b>Institute Rudjer Boskovic, Zagreb, Croatia</b> , Research Assistant Scientist	03/89-09/89
<b>KFA, Jülich, Germany</b> , Visiting Scientist	09/88-11/88

### *EDUCATION*

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#### **The City College of The City University of New York**

Ph. D. in Physics, 6/95

- Thesis "Theory of Sonoluminescence"

#### **University of Zagreb, Croatia**

B. S. in Physics 6/89 (advisor Prof. Klaus Goeke, KFA, Jülich, Germany)

### *RESEARCH INTERESTS*

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Scientific computing; Numerical solutions of nonlinear PDE's; Fluid Mechanics; Pattern formation; Thin liquid films; Nonlinear elliptic problems with applications to moving interface problems in the flow of non-Newtonian fluids; Molecular dynamics simulations of granular materials and effects of microstructure on macro properties.

*PAST AND CURRENT STUDENTS AND POST-DOCTORAL ASSOCIATES* \_\_\_\_\_

1. Xiaoni Fang, graduate student, starting February 2008.
2. Nebojsa Murisic, graduate student, thesis title “Instabilities of Evaporative Drops and Films” (graduated May 2008).
3. Tetyana Segin, graduate student, thesis title “Nonlinear Long-wave Interfacial Stability of Two-layer Gas-liquid Flow”, (graduated May 2004).
4. Oleh Baran, postdoctoral associate, project title “Statistical properties of dense granular materials”, (January 2003 - August 2004).

*CONSULTING ACTIVITIES* \_\_\_\_\_

- Consulting for KLA-Tencor, San Jose, CA, 2006-2007.

*OTHER SELECTED ACTIVITIES* \_\_\_\_\_

1. Organizer of the Pan American Study Institute (PASI) on Interfacial Fluid Dynamics, Argentina, 2007, attended by 80 lecturers, senior and postdoctoral researchers and graduate students originating from more than 10 countries. Supported by: the PASI NSF grant, Grants from the International Center for Theoretical Physics (ICTP), Trieste, Italy; the National Council for Scientific and Technical Research (CONICET), Argentina; the Latin American Physics Center (CLAF), Brazil.
2. Editor of the Program Book of the Pan American Study Institute (PASI) on Interfacial Fluid Dynamics, Mar del Plata, Argentina, August 2007 (with A. G. Gonzalez, J. Gomba, and J. Diez) (70 pages).
3. Organizer of a the Minisymposium on Granular Matter at ICIAM 2007, Zürich, Switzerland, 2007, published in *Program Book of the 6th International Congress on Industrial and Applied Mathematics*, p. 125, Zürich, Switzerland, July 2007.
4. Grant from the Fulbright Foundation to perform teaching and research in Argentina during Spring semester of 2006; developed a graduate course “Nonlinear Partial Differential Equations” taught at Department of Physics, Universidad del Centro de la Provincia de Buenos Aires, Tandil, Argentina (Spring 2006).
5. Grant from NSF Division of Undergraduate Education CCLI Adaptation and Implementation Program “Equipment and Modules for Capstone Course in Applied Mathematics” (2005) (with Daniel Goldman, Michael Booty, Bruce Bukiet and Michael Siegel).
6. Grant from the Council for International Exchange of Scholars/Fulbright Foundation to develop collaborative track of PhD program in Mathematical Sciences with University National del Centro de la Provincias de Buenos Aires, Argentina (with Javier Diez).

## *HONORS*

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- Member of the Specialist Review Committee for the Fulbright Scholar Program (2006, 2007).
- Invited to serve as a member of the Scientific Advisory Committee of "International Workshop on Wave Dynamics and Stability of Thin Film Flow Systems" held at IIT, Madras, India, September 2006.
- Named Fulbright Scholar for Academic year 2005/06; cited in the NJIT Press Release on Dec. 2, 2005, the web site physorg.com on Dec. 2, 2005, the trade journal "Test and Measurement" on Dec. 7, 2005; Letter from US Senator Lautenberg congratulating on the grant from the Fulbright Foundation on March 2006.
- Invited Plenary talk at the Annual Meeting of Argentinian Physical Society, La Plata, Argentina, 2005.
- Invited Session Chair at the following meetings: FACM '05, '07, '08 conferences at NJIT, Newark, NJ; International Congress of Mathematicians (ICM), Madrid, Spain (September 2006); APS Division of Fluid Dynamics meetings in Chicago, 2005 and Dallas, TX 2002; SIAM Annual Meeting, Atlanta, GA, May 1999; Discussion leader at the Gordon conference "Gravitational Effects in Physico-chemical Systems", New London, NH, July 2001.
- Named 'KITP Scholar' by The Kavli Institute for Theoretical Physics, University of California, Santa Barbara, CA (2005 - 2007).
- Nominated for University Excellence in Teaching Award by the Department of Mathematical Sciences of NJIT (2001, 2002, 2003, 2005).
- Entries in the Citation Index: 400+ (as of July 2007).

## *SELECTED SERVICE ACTIVITIES AT NJIT*

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- Director of Graduate Studies of the Department of Mathematical Sciences (2007 - present).
- Graduate advisor for the PhD program in Applied Mathematics, MS programs in Applied Mathematics and in Computational Biology (2007 - present).
- Member of the Graduate Council of NJIT (2007 - present).
- Chair of the Committee for Qualifying Exams (2006).
- Member of the Organizing Committee of the Conference Frontiers in Applied and Computational Mathematics (2006).

1. Kondic L., O'Hern, C.S., Behringer, R.P., Dense Granular Systems: From Theory to Applications, *SIAM News*, **40**, No. 8, 13-15 (2007).
2. Gomba, J., Diez, J., Gratton, R., Gonzalez, A., Kondic, L., Stability study of a constant-volume thin film flow, *Phys. Rev. E*, **76**, 046308 (2007).
3. Kondic, L., Diez, J., Breakup of finite fluid films, *Proceedings in Applied Mathematics and Mechanics*, **7** (2008) (to appear).
4. Kondic, L., Behringer, R. P., Signal propagation through dense granular systems, *Proceedings in Applied Mathematics and Mechanics*, **7** (2008) (to appear).
5. Murisic, N., Kondic, L., Instabilities of Volatile Drops, *Proceedings in Applied Mathematics and Mechanics*, **7** (2008) (to appear).
6. Diez, J., Kondic, L., On the breakup of fluid films of finite and infinite extent, *Phys. Fluids*, **19**, 072107 (2007).
7. Kondic, L., Murisic, N., Evaporative drops, *Annali dell'Universita di Ferrara*, (to appear 2008).
8. Gotkis, Y., Ivanov, I., Murisic, N., Kondic, L., Dynamic Structure Formation at the Fronts of Volatile Liquid Drops, *Phys. Rev. Lett.*, **93**, 186101 (2006).
9. Baran, O., Kondic, L., On velocity profiles and stresses in sheared and vibrated granular systems under variable gravity, *Phys. Fluids*, **18**, 121509 (2006).
10. Segin, T., Kondic, L., Tilley, B.S., Long-wave linear stability theory for two-fluid channel flow including compressibility effects, *IMA J. Appl. Math.*, **71**, 715-739 (2006).
11. Xu, N., O'Hern, C., Kondic, L., Stabilization of nonlinear velocity profiles in athermal systems undergoing planar shear flow *Phys. Rev. E*, **72**, 041504 (2005).
12. Baran, O., Kondic, L., Velocity profiles, stresses, and Bagnold scaling of sheared granular system in zero gravity, *Phys. Fluids*, **17**, 073304, (2005).
13. Kondic, L., Diez, J., On nontrivial traveling waves in thin film flows including contact lines, *Physica D*, **209**, 135-144 (2005) (special issue on Non-linear Dynamics of Thin Films and Fluid Interfaces).
14. Segin, T., Tilley, B.S., Kondic, L., On undercompressive shocks in constrained two-layer flows, *Physica D* **209**, 245-259 (2005) (special issue on Non-linear Dynamics of Thin Films and Fluid Interfaces).
15. Diez, J., Gonzalez, A., Gomba, J., Gratton, R., Kondic, L., Unstable spreading of a fluid filament on a vertical plane: Experiments and simulations, *Physica D* **209**, 49-61 (2005) (special issue on Non-linear Dynamics of Thin Films and Fluid Interfaces).

16. Kondic, L., Behringer, R. P., Elastic Energy, Fluctuations and Temperature for Granular Materials, *Proceedings of the 5th International Conference on Micromechanics of Granular Media, Powders and Grains 2005*, Stuttgart, Germany, ed. R. Garcia-Rojo, H. J. Herrmann, S. McNamara, Balkema Publishers, Leiden, The Netherlands, ISBN 0-415-38347-1, 397-400 (2005).
17. Segin, T., Tilley, B.S., Kondic, L., On flooding and undercompressive shocks in counter-current two-layer flow, *J. Fluid. Mech.* **532**, 217-242 (2005).
18. Xu, N., O'Hern, C., Kondic, L., Velocity Profiles in Repulsive Glassy and Athermal Systems under Shear, *Phys. Rev. Lett.* **94**, 016001 (2005).
19. Kondic L., Behringer, R.P., Elastic Energy, Fluctuations and Temperature for Granular Materials, *Europhys. Lett.*, **67**, 205-211 (2004).
20. Gonzalez, A., Diez, J., Gomba, J., Gratton, R., Kondic, L. Spreading of a thin two-dimensional strip of fluid on a vertical plane: Experiments and modeling, *Phys. Rev. E*, **70** 026309 (2004).
21. Kondic, L., Diez, J., Instabilities in the flow of thin films on inhomogeneous surfaces, *Phys. Fluids*, **16**, 3341-3360 (2004)
22. Kondic, L., Behringer, R. P., Extended granular temperature, *Proceedings of the XXI International Congress on Theoretical and Applied Mechanics*, Warsaw, Poland, Proceedings on CD-ROM: ISBN 83-89697-10-1 (2004).
23. Kondic, L., Instabilities in the flow of thin liquid films, *SIAM Review*, **45**, 95-115 (2003).
24. Gonzalez, A., Diez, J., Gomba, J., Gratton, R., Kondic, L., Spreading of thin two-dimensional strip of fluid on a vertical plane: Experiments and modeling, *Proceedings of the VIII Meeting on Recent Advances in Physics of Fluids and its Applications*, 18-36 (2003)
25. Kondic L., Tennakoon, S.G.K., Painter, B., Hartley, R., Behringer, R.P., Segregation by friction, *Europhys. Lett.*, **61**, 742-748 (2003).
26. Diez, J., Kondic, L., Instabilities in the flow of thin films, *International J. Heat and Technology*, **21**, 31-36 (2003).
27. Gomba, J., Gonzalez, A., Diez, J., Gratton, R., Kondic, L., Instability of the contact line and thickness profiles in vertical oil spreading, *Anales de la Asociacion Fisica Argentina* **14**, Asociacion Fisica Argentina (AFA) publishers, 86-91 (2003).
28. Kondic, L., Diez, J., Flow of thin films on patterned surfaces, *Colloids and Surfaces A*, **214**, 1-11 (2002).
29. Diez, J., Kondic, L. Simulations of thin liquid films and drops in higher dimensions, *J. Comp. Phys.*, **183**, 274-306 (2002).

30. Kondic, L., Diez, J., Flow of thin films on patterned surfaces: Controlling the instability, *Phys. Rev. E*, **65**, 045301 (2002).
31. Metcalfe, G., Tennakoon, S.G.K., Kondic, L., Schaeffer, D.G., Behringer, R.P., Granular friction, Coulomb Failure, and Fluid-Solid transition for horizontally shaken granular materials, *Phys. Rev. E*, **65**, 031302 (2002).
32. Kondic, L, Utter, B., Behringer, R.P., Dynamics of Sheared Granular Materials, *Proceedings of the Sixth Microgravity Fluids Physics and Transport Phenomena Conference*, 453-475 (2002).
33. Kondic, L., Diez, J., Pattern formation in gravity driven flow of thin films: Constant flux flow, *Phys. Fluids* **13**, 3168-3184 (2001).
34. Fast, P., Kondic, L., Shelley, M.J., Palffy-Muhoray, P., Pattern formation in non-Newtonian Hele-Shaw flow, *Phys. Fluids* **13**, 1191-1212 (2001).
35. Diez, J., Kondic, L., Contact line instabilities of thin liquid films, *Phys. Rev. Lett.* **86**, 632-635 (2001).
36. Diez, J., Kondic, L., Bertozzi, A.L., Global models for moving contact lines, *Phys. Rev. E* **63**, 011208 (2001).
37. Kondic, L., Diez, J., Instabilities in the flow of thin liquid films, *Proceedings of IU-TAM Symposium on Free Surface Flows*, eds. A. C. King and Y. D. Shikhmurzaev, Fluid Mechanics and its Applications **62**, 161-168 (2001), Kluwer Academic Publishers, Norwell, MA.
38. Diez, J., Kondic, L., Contact line instabilities in thin films flowing down an incline, *Proceedings of the Seventh International Seminar on Recent Advances in Fluid Mechanics, Physics of Fluids and Associated Complex Systems*, 1-33, Buenos Aires, Argentina (2001).
39. Behringer, R.P., Clément, E., Geng, J., Howell, D., Kondic, L., Metcalfe, G., O'Hern, C., Reydellet, G., Tennakoon, S.G.K., Vanel, L., Veje, C., Science in the Sandbox: Fluctuations, Friction and Instabilities, *Lecture Notes in Physics* Vol. 567, Eds. D. Reguera, L. L. Bonilla, and J. M. Rubi, 351-391, Springer-Verlag, Berlin, 2001.
40. Metcalfe, G., Tennakoon, S.G.K., Kondic, L, Schaeffer, D.G., Behringer, R.P., Solid-Liquid Transitions of Horizontally Shaken Dry Granular Materials, *Powders and Grains 2001*, ed. Y Kishino, Balkema, Rotterdam, 513-516 (2001).
41. Kondic, L., Acoustic cavitation and sonoluminescence, edited by J. R. Blake, *J. Acoust. Am. Soc.*, **108**, 881-882 (2000).
42. Dan, M., Cheeke, J.D.N., Kondic, L., Dependence of Single Bubble Sonoluminescence on Ambient Pressure, *Ultrasonics* **38**, 566-569 (2000).

43. Diez, J., Kondic, L., Instability of the contact line in thin film spreading, (Inestabilidades de linea de contacto en flujos de capas delgadas), *Anales de la Asociacion Fisica Argentina* **12**, 98-102 (2000), Asociacion Fisica Argentina (AFA) publishers (2000).
44. Kondic, L., Bertozzi, A.L., Nonlinear dynamics and transient growth of driven contact lines, *Phys. Fluids* **11**, 3560-3562 (1999).
45. Diez, J., Kondic, L., Bertozzi, A.L., A two-dimensional code for thin films, *Proceedings of the Fluid Dynamics Conference of Argentinian Physical Society*, 35-40 (1999).
46. Dan, M., Cheeke, J.D.N., Kondic, L., Ambient Pressure Effect on Single Bubble Sonoluminescence, *Phys. Rev. Lett.* **83**, 1870-1873 (1999).
47. Kondic, L., Dynamics of the particles on a surface: About collision induced sliding and other effects, *Phys. Rev. E* **60**, 751-770 (1999).
48. Behringer, R.P., Howell, D., Kondic, L., Tennakoon, S.G.K., Veje, C., Predictability and granular materials, *Physica D* **133**, 1-17 (1999).
49. Tennakoon, S.G.K., Kondic, L., Behringer, R.P., Onset of a flow in horizontally vibrated granular bed: convection by horizontal shearing, *Europhysics Lett.* **45**, 470-475 (1999).
50. Kondic, L., Bertozzi, A.L., Thin liquid films: Instabilities of driven coating flows on a rough surface, *Dynamics in Small Confining Systems IV*, eds. J. M. Drake, G. S. Grest, J. Klafter, and R. Kopelman, Materials Research Society Proceedings Series **543**, 213-218 (1999).
51. Kondic, L., Tennakoon, S.G.K., Painter, B., Behringer, R.P., eds. J. M. Drake, G. S. Grest, J. Klafter, and R. Kopelman, Friction-based segregation of 2D granular assembly, *Dynamics in Small Confining Systems IV*, Materials Research Society Proceedings Series **543**, 357-362 (1999).
52. Kondic, L., Fast, P., Shelley, M.J., About computations of Hele-Shaw flow of non-Newtonian fluids, *Dynamics in Small Confining Systems IV*, eds. J. M. Drake, G. S. Grest, J. Klafter, and R. Kopelman, Materials Research Society Proceedings Series **543**, 207-212 (1999).
53. Dan, M., Cheeke, J.D.N., Kondic, L., Experimental observation of the effect of ambient pressure on single bubble sonoluminescence, *Proceedings of the Joint Conference of ASA, EAA and DAGA*, Proceedings in CD-ROM: 1PPAD\_8, 4 pages (1999).
54. Kondic, L., Shelley, M.J., Palffy-Muhoray, P., Non-Newtonian Hele-Shaw flow and the Saffman-Taylor instability, *Phys. Rev. Lett.* **80**, 1433-1436 (1998).
55. Behringer, R.P., Howell, D., Kondic, L., Tennakoon, S.G.K., Veje, C., Gravity and granular materials, *Proceedings of The Fourth NASA Microgravity Fluid Physics Transport Phenomena Conference*, 6 pages (1998).

56. Kondic, L., Yuan, C., Chan, C.K., About ambient pressure and sonoluminescence, *Phys. Rev. E* **57**, 32-35 (1998).
57. Kondic L., Palffy-Muhoray, P., Shelley, M.J., Models of Non-Newtonian Hele-Shaw flow, *Phys. Rev. E* **54**, 4536-4539 (1996).
58. Kondic, L., Gersten, J.I., Yuan, C., Theoretical studies of sonoluminescence radiation: Radiative transfer and parametric dependence, *Phys. Rev. E* **52**, 4976-4990 (1995).

#### INVITED PRESENTATIONS

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1. Breakup of finite fluid films, Levich Institute, The City College of New York, New York, NY, April 2008.
2. Finite size effects on stability of fluid films and rivulets, *Euromech 490 Workshop on Dynamics and Stability of Thin Liquid Films and Slender Jets*, London, United Kingdom, September 2007.
3. Signal propagation through dense granular media, *6th International Congress on Industrial and Applied Mathematics*, Zürich, Switzerland, July 2007.
4. Instabilities of thin liquid films, LAM Research, Fremont, CA, June 2007.
5. Instabilities of photoresist films, IBM Almaden Research Center, San Jose, CA, June 2007.
6. Instabilities in the flow of thin liquid films, School of Engineering, Universidad de Buenos Aires, Buenos Aires, Argentina, June 2006.
7. Instabilities in the flow of thin liquid films, INTEC (Instituto de Desarrollo Tecnico para la Industria Quemica), Santa Fe, Argentina, May 2006.
8. Granular systems under gravity, *IUTAM Symposium on Interactions for Dispersed Systems in Newtonian and Viscoelastic Fluids*, Guanajuato, Mexico, March 2006.
9. Dense Granular Systems, Courant Institute of Mathematical Sciences, New York University, New York, NY, February 2006.
10. On splitting of a liquid strip, *UCLA-IPAM-NSF workshop on Thin Films and Fluid Interfaces*, Los Angeles, CA, February 2006.
11. Dense Granular Systems, Department of Mechanical Engineering, New Jersey Institute of Technology, Newark, NJ, February 2006.
12. Extended Temperature for Dense Granular Systems, Department of Mathematical Sciences, New Jersey Institute of Technology, Newark, NJ, December 2005.

13. Thin liquid films: from theory to applications, *Annual Meeting of Argentinian Physical Society*, La Plata, Argentina, September 2005 (Invited Plenary Talk).
14. Instabilities, coalescence and rupture in the flow of thin liquid films, Department of Physics, Twente University, Enschede, The Netherlands, July 2005.
15. Temperature for dense granular systems, *Granular Physics Workshop*, Kavli Institute for Theoretical Physics, UCSB, Santa Barbara, CA, June 2006.
16. Thin liquid films with contact lines: instabilities, coalescence and rupture, *1005th Meeting of the American Mathematical Society*, Newark, DE, April 2005.
17. Instabilities in the flow of thin liquid films, Courant Institute of Mathematical Sciences, New York University, New York, NY, December 2004.
18. Dynamics of thin liquid films, *International Workshop on Pattern formation through instabilities in thin liquid films: from fundamental aspects to applications*, Dresden, Germany, September 2004.
19. Extended granular temperature, *21st International Congress on Theoretical and Applied Mechanics*, Warsaw, Poland, August 2004.
20. Instabilities in the flow of thin liquid films including contact lines, *Frontiers in Applied and Computational Mathematics*, Newark, NJ, May 2004.
21. Elastic granular temperature, *Workshop on Fluctuations and Continuum Equations for Granular Flow*, Statistical and Applied Mathematical Sciences Institute, Research Triangle Park, NC, April 2004.
22. Flow of thin films on heterogeneous surfaces, *Banff Fluids Workshop*, Banff, Alberta, Canada, December 2003.
23. Extended temperature for dense granular materials, *Granular Materials Workshop*, Clark University, Worcester, MA, July 2003.
24. Contact line instabilities of thin liquid films, Levich Institute, The City University of New York, New York, NY, May 2003.
25. Contact line instabilities of thin liquid films, Department of Mathematics, University of Delaware, Newark, DE, March 2003.
26. Dynamics of Sheared Granular Materials, *The Sixth Microgravity Fluids Physics and Transport Phenomena Conference*, Cleveland, OH, August 2002.
27. Instabilities, pattern formation, and Topological Changes in Flow of Thin Liquid Films, University of Buenos Aires, Buenos Aires, Argentina, August 2002.
28. Instabilities, pattern formation, and Topological Changes in Flow of Thin Liquid Films, University National Del Centro, Tandil, Argentina, August 2002.

29. Contact line instabilities of thin films, Department of Applied Physics and Applied Mathematics, Columbia University, New York City, NY, October 2001.
30. Thin Film Flows on Heterogeneous Surfaces, *Gordon Conference "Gravitational Effects in Physico-chemical Systems"*, New London, NH July 2001.
31. Contact line instabilities of thin liquid films, Department of Physics, Carnegie Mellon University, Pittsburgh, PA, April 2001.
32. Contact line instabilities of thin liquid films, Department of Mathematics, North Carolina State University, Raleigh, NC, February 2001.
33. Contact line instabilities of thin liquid films, *AiChe 2000 Annual Meeting*, Los Angeles, CA, November 2000.
34. Instabilities in the flow of thin liquid films, *IUTAM Symposium on Free Surface Flows*, Birmingham, United Kingdom, July 2000.
35. Pattern formation in the flow of thin liquid films, Department of Mathematical Sciences, New Jersey Institute of Technology, Newark, NJ, June 2000.
36. Contact line instabilities of thin liquid films, Department of Mathematics, Boston University, Boston, MA, April 2000.
37. Instabilities in the flow of thin liquid films, Department of Mathematics, University of Michigan, Ann Arbor, MI, March 2000.
38. Flows of thin films on an imperfect surface, *SIAM Annual Meeting*, Atlanta, GA, May 1999.
39. About computations of Hele-Shaw flow of non-Newtonian fluids, Department of Mathematics, Temple University, Philadelphia, PA, March 1999.
40. Computing Hele-Shaw flow of non-Newtonian fluids, Department of Mathematics, Southern Methodist University, Dallas, TX, February 1999.
41. Computing Sonoluminescence, Device Technology Department, Hewlett-Packard Company, Palo Alto, CA, January 1999.
42. Hele-Shaw flow of non-Newtonian fluids, Center for Applied Scientific Computing, Lawrence Livermore National Laboratory, Livermore, CA, January 1999.
43. Theory of Sonoluminescence, Department of Mathematical Sciences, New Jersey Institute of Technology, Newark, NJ, January 1999.
44. About Ambient Pressure and Single Bubble Sonoluminescence, Department of Aerospace and Mechanical Engineering, Boston University, Boston, MA, December 1998.
45. Hele-Shaw flow of non-Newtonian fluids, Department of Mathematics, Worcester Polytechnic University, Worcester, MA, December 1998.

46. Pattern formation in the Hele-Shaw flow of non-Newtonian fluids, Department of Mathematics, State University of New York, Buffalo, NY, November 1998.
47. Pattern formation in the Hele-Shaw flow of non-Newtonian fluids, Department of Mathematics, North Carolina State University, Raleigh, NC, September 1998.
48. Pattern formation in the Hele-Shaw flow of non-Newtonian fluids, Department of Mathematics, Stanford University, Palo Alto, CA, June 1998.
49. Ambient Pressure Effect on Single Bubble Sonoluminescence, Department of Physics, Concordia University, Montreal, Canada, April 1998.
50. Pattern formation in the Hele-Shaw flow of non-Newtonian fluids, Department of Mathematics, Duke University, Durham, NC, February 1998.
51. Ambient Pressure Effect on Single Bubble Sonoluminescence, Center for Nonlinear and Complex Systems, Duke University, Durham, NC, February 1998.
52. Effect of ambient pressure on single bubble sonoluminescence, *NATO-ASI Workshop on Sonochemistry and Sonoluminescence*, Leavenworth, WA, August 1997.
53. Computing Hele-Shaw flow of non-Newtonian fluids, Department of Mathematics, Duke University, Durham, NC, March 1997.
54. Pattern formation in the Hele-Shaw flow of non-Newtonian fluids, Department of Mathematical Sciences, New Jersey Institute of Technology, Newark, NJ, March 1997.
55. Single Bubble Sonoluminescence, Center for Nonlinear Studies, Los Alamos National Laboratory, Los Alamos, NM, December 1996.
56. Sonoluminescence: Discussion of some new experimental results, *Third joint meeting of ASA and ASJ*, Honolulu, HA, December 1996.
57. Theory of Single Bubble Sonoluminescence, Institute of Physics, Academia Sinica, Taipei, Taiwan, September 1995.
58. Theory of Single Bubble Sonoluminescence, Department of Mathematics, Kaochung University, Kaochung, Taiwan, September 1995.
59. Single Bubble Sonoluminescence, Courant Institute, New York University, New York, NY, April 1995.
60. Single Bubble Sonoluminescence, Institute for Scientific Computing, Lawrence Livermore National Laboratory, Livermore, CA, March 1995.

1. Gomba, J., Diez, J.A., Gratton, R., Gonzalez, A.G., and L. Kondic, Contact line instability of a constant volume flow, *Book of Abstracts of 7th European Coating Symposium: Recent advances in coating, drying and dynamical wetting*, p. 100-101, Paris, France, September 2007.
2. Murisic, N., Kondic, L., How do drops evaporate?, *Bull. Amer. Phys. Soc.*, **52**, 23, Salt Lake City, UT, November 2007.
3. Kondic, L., Behringer, R.P., Signal propagation in dense granular systems, *Bull. Amer. Phys. Soc.*, **52**, 66, Salt Lake City, UT, November 2007.
4. Diez, J., Kondic, L., Stability of finite and infinite fluid rivulets, *Bull. Amer. Phys. Soc.*, **52**, 159, Salt Lake City, UT, November 2007.
5. Borden, Z., Grandjean, H., Hosoi, A.E., Kondic, L., Tilley, B.S., On barodiffusion in thin binary falling fluid films, *Bull. Amer. Phys. Soc.*, **52**, 196, Salt Lake City, UT, November 2007.
6. Gomba, J., Diez, J., Gratton, R., Gonzalez, A., Kondic, L., Flow of an infinite fluid strip down an incline plane: Contact line stability, *Bull. Amer. Phys. Soc.*, **52**, 196, Salt Lake City, UT, November 2007.
7. Gotkis, Y., Kondic, L., To the origin of the watermarks formation, *Program of the Fifth International Surface Cleaning Workshop*, p. 1, Boston, MA, November 2007.
8. Gomba, J., Diez, J., Gratton, R., Gonzalez, A., Kondic, L., Contact line instability of a constant volume flow, *Book of Abstracts of 7th European Coating Symposium: Recent advances in coating, drying and dynamical wetting*, p. 100-101, Paris, France, September 2007.
9. Tilley, B.S., Grandjean, H., Hosoi, A.E., Kondic, L., On dimpled thin falling liquid films, *Euromech 490 Workshop on Dynamics and Stability of Thin Liquid Films and Slender Jets*, p. 7, London, United Kingdom, September 2007.
10. Murisic, N., Kondic, L., Octopus-shaped instabilities of Evaporating Droplets, *Euromech 490 Workshop on Dynamics and Stability of Thin Liquid Films and Slender Jets*, p. 7, London, United Kingdom, September 2007.
11. Oron, A., Kondic, L., Evaporative instabilities of Liquid Films and Drops, *Program Book of the Pan American Study Institute on Interfacial Fluid Dynamics: From Theory to Applications*, p. 32, Mar Del Plata, Argentina, August 2007.
12. Murisic, N., Kondic, L., Octopus-shaped instabilities of Evaporating Droplets, *Program Book of the Pan American Study Institute on Interfacial Fluid Dynamics: From Theory to Applications*, p. 60, Mar Del Plata, Argentina, August 2007.

13. Murisic, N., Kondic, L., Octopus-shaped instabilities of Evaporating Droplets, *Program Book of the 6th International Congress on Industrial and Applied Mathematics*, p. 188, Zürich, Switzerland, July 2007.
14. Kondic, L., Diez, J., Breakup of finite fluid films, *Program Book of the 6th International Congress on Industrial and Applied Mathematics*, p. 292, Zürich, Switzerland, July 2007.
15. Kondic, L., Murisic, N., Octopus-shaped instabilities of Evaporating Droplets, *Program of the 5th Conference on Applied Mathematics and Scientific Computing*, p. 5, Brijuni, Croatia, July 2007.
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17. Murisic, N., Kondic, L., "Octopus" shaped instabilities of Evaporating Drops, *Frontiers in Applied and Computational Mathematics*, 59, Newark, NJ, May 2007.
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*PAST AND CURRENT SUPPORT* \_\_\_\_\_

PI	NSF	Bridging the Spatial and Temporal Scales in Dense Granular Systems	8/06 - 7/09
PI	NSF	Pan-American Study Institute (PASI) on Interfacial Fluid Dynamics	9/06 - 8/08

PI	ICTP (Trieste, Italy)	Pan-American Study Institute (PASI) on Interfacial Fluid Dynamics (partial support)	8/07 - 8/07
PI	Fulbright Foundation	Dynamics of non-Newtonian liquid films involving contact lines	9/05–8/06
PI	NSF	Equipment and Modules for a Capstone Course in Applied Mathematics	9/05 - 8/08
PI	NASA	Gravity and Granular Materials: Flight Project	4/04–11/07
Co-PI	CIES	Establishment of Joint PhD Programs	7/04–6/06
I	NSF	Major Research Instrumentation	8/04–7/06
PI	NASA	Gravity and Granular Materials	3/00–11/03
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