

Curriculum Vitae – Natsuhiko Yoshinaga



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Date of birth: 27 July, 1979, Osaka, Japan
Gender: Male
Marital Status: Married since 2010, two daughters
Citizenship: Japanese

EDUCATION

B.Sc. in Physics, Kyoto University 04/1998 - 03/2002

M.Sc. in Physics, Kyoto University 04/2002 - 03/2004
on the subject of “The folding transition in a single semiflexible polymer.”
Supervisor: Kenichi Yoshikawa, Kyoto University

Ph.D. in Physics, Kyoto University 04/2004 – 03/2007
on the subject of “Single semiflexible polymers at equilibrium and nonequilibrium
states.”
Supervisor: Kenichi Yoshikawa, Kyoto University

RESEARCH EXPERIENCE

Visiting researcher in 10/2005 – 03/2006
Département de recherche fondamentale sur la matière condensée (DRFMC), CEA-Grenoble
(France)
collaborating with Avraham Halperin
Theory Group, Institut Laue Langevin (France)
collaborating with Efim Kats

Research fellow in 04/2007 – 04/2010
Department of Physics, Graduate School of Science, the University of Tokyo (Japan)
collaborating with Masaki Sano

Visiting researcher in 10/2007 – 03/2008
PhysicoChimie Curie UMR 168, Institut Curie, Section recherche (France)

collaborating with Jean-François Joanny, Philippe Marcq, and Jacques Prost

Research fellow in 04/2010 – 12/2011
Fukui Institute for Fundamental Chemistry, Kyoto University (Japan)

Assistant Professor in 12/2011 – 06/2016
Mathematical Science Group, WPI-AIMR, Tohoku University (Japan)

Associate Professor in 07/2016 – present
Mathematical Science Group, WPI-AIMR, Tohoku University (Japan)

Chief Researcher in 08/2016 – present
AIST-TohokuU Mathematics for Advanced Materials-OIL, MathAM-OIL, AIST (Japan)

Vice Laboratory Director in 11/2018 – present
AIST-TohokuU Mathematics for Advanced Materials-OIL, MathAM-OIL, AIST (Japan)

SHORT STAY

Max Planck Institute for the Physics of Complex Systems (Germany) 08 – 09/2011
Isaac Newton Institute for Mathematical Sciences (UK) 05/2013
The Kavli Institute for Theoretical Physics (USA) 02 – 03/2014
University of Bristol (UK) 06 – 07/2014, 08 – 09/2015

LANGUAGES

Japanese (native language), English (fluent)

SOCIETIES

Japanese Physical Society (JPS) Member
American Physical Society (APS) Member
Society for Industrial and Applied Mathematics (SIAM) Member
Japanese Biophysical Society Member
National Institute of Science and Technology Policy, Science and Technology Foresight Center,
Professional Investigator

TECHNICAL SKILLS

Good experience with UNIX-LINUX and Windows
Good experience with C, C++
Good experience with Mathematica, Matlab, R, Scilab, Python

HONOR, FELLOWSHIPS and AWARD

Research Fellow of the Japan Society for Promotion of Science 2004-2007
for Young Scientists. (DC1, No.1142)

RESEARCH FUNDINGS

1. UK Japan Collaborative Civil Nuclear Research Programme, JAEA, Japan, "Efficient synthesis of granulated titanate as a reusable adsorbent for strontium ion", co-investigator (PI: Naoki Asao (Shinshu Univ.) and Joseph Hriljac(Diamond Light Source)), 2020/11 – 2023/03, 13,000,000yen
2. Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, Japan, 'Hypermaterials: Inovation of materials science in hyper space', Proposed Research Projects " Structural formation of quasicrystal and model selection of the target structure using the phase-field crystal model", representative, 2020/04 – 2022/03, 3,300,000yen
3. Grant-in-Aid for Scientific Research (C), JSPS, Japan, " Effective active stress in collective behaviours of active matters", representative, 2020/04 – 2023/03, 3,400,000yen
4. Grant-in-Aid for Scientific Research (B), JSPS, Japan, " Elucidation of physics underlying spatiotemporal pattern formation in cell size spaces", co-investigator (PI: Kei Fujiwara (Keio Univ.)), 2020/04 – 2023/03, 2,400,000yen
5. Grant-in-Aid for Scientific Research (C), JSPS, Japan, "Self-propulsion, interactions, and hydrodynamic descriptions of active soft materials", representative, 2017/04 – 2020/03, 3,400,000yen
6. Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, Japan, 'Synergy of Fluctuation and Structure :Quest for Universal Laws in Non-Equilibrium Systems', Proposed Research Projects "Collective behavior of self-propelled particles to understand tissue dynamics", representative, 2016/04 – 2018/03, 2,600,000yen
7. Grant-in-Aid for Young Scientists (B), JSPS, Japan, "Spontaneous motion and deformation of active matters: theoretical modelling for cell motility", representative, 2014/04 – 2017/03, 2,700,000yen
8. Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, Japan, 'Synergy of Fluctuation and Structure :Quest for Universal Laws in Non-Equilibrium Systems', Proposed Research Projects "Collective behavior of active soft matters: Toward tissue dynamics", representative, 2014/04 – 2016/03, 2,300,000yen
9. Overseas Dispatch Program, Yoshida Foundation for Science and Technology, "Spontaneous motion and deformation of a droplet driven by chemical reaction", representative, 2013/06, 250,000yen (travel for Dynamics of Suspensions, Gels, Cells and Tissues, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK, 24 - 28 June 2013)
10. Grant-in-Aid for Young Scientists (B), JSPS, Japan, "Hydrodynamics of a cell as a nonequilibrium soft material", representative, 2011/04 – 2014/03, 2,900,000yen
11. JSPS Bilateral Joint Research Projects (SAKURA Program), JSPS, Japan, "Nonequilibrium physics of cell as a soft active material", representative, 2011/04 – 2013/03, 2,000,000yen

12. Grant-in-Aid for JSPS Fellows, JSPS, Japan, "Conformation and dynamics of folding transition in single semiflexible polymers", representative, 2007/04 – 2010/03, 2,800,000yen
13. Grant-in-Aid for JSPS Fellows, JSPS, Japan, "On the energetic theory of polymer complexes with hierarchic structures", representative, 2004/04 – 2007/03, 3,300,000yen

JOURNAL REFEREED

Physical Review Letters, Physical Review E, Physical Review X, Soft Matter, Journal of Fluid Mechanics, Physics of Fluids, Langmuir, Journal of Statistical Mechanics: Theory and Experiment (JSTAT), New Journal of Physics, Journal of Physical Chemistry, Journal of Physics: Condensed Matter, Journal of Physical Society Japan, Nature Communications, Physica D, SIAM Journal on Applied Dynamical, Systems, Advances in Colloid and Interface Science, Physics Letters A, Chemical Physics Letters, ACS Applied Materials & Interfaces, and other journals

PUBLICATIONS AND PRESENTATIONS

Journal articles:

1. Sakura Takada, Natsuhiko Yoshinaga, Nobuhide Doi, Kei Fujiwara, "Mode selection mechanism in traveling and standing waves revealed by Min wave reconstituted in artificial cells" submitted
2. Uyen Tu Lieu and Natsuhiko Yoshinaga, "Inverse design of two-dimensional structure by self-assembly of patchy particles", arXiv: 2109.10102 (2021).
3. Natsuhiko Yoshinaga and Satoru Tokuda, "Bayesian Modelling of Pattern Formation from One Snapshot of Pattern", arXiv: 2006.06125 (2021).
4. Uyen Tu Lieu and Natsuhiko Yoshinaga, "Topological defects of dipole patchy particles on a spherical surface", *Soft Matter*, 16, 7667-7675 (2020).
5. Shunshi Kohyama, Kei Fujiwara, Natsuhiko Yoshinaga, Nobuhide Doi, "Conformational equilibrium of MinE regulates the allowable concentration ranges of a protein wave for cell division", *Nanoscale*, 12, 11960-11970 (2020).
6. Akira Kamimaki, Satoshi Iihama, Kazuya Suzuki, Natsuhiko Yoshinaga, and Shigemi Mizukami, "Parametric amplification of magnons in synthetic antiferromagnets", *Physical Review Applied*, 13, 044036 (2020).
7. Shunshi Kohyama, Natsuhiko Yoshinaga, Miho Yanagisawa, Kei Fujiwara, Nobuhide Doi, "Confinement Effects on a Bacterial Reaction-Diffusion System for cell division", *eLife* 8, e44591 (2019).
8. Rafael Monteiro and Natsuhiko Yoshinaga, "The Swift-Hohenberg Equation under directional-quenching: finding heteroclinic connections using spatial and spectral decompositions", *Archive for Rational Mechanics and Analysis*, 235, 405-470 (2020).
9. Natsuhiko Yoshinaga, "Self-propulsion of an active polar drop", *Journal of Chemical Physics*, 150, 184904 (2019).
10. Natsuhiko Yoshinaga, Tanniemola B. Liverpool, "From hydrodynamic lubrication to many-body interactions in dense suspensions of active swimmers", *European Physical Journal E*, 41, 76 (2018).
11. Hiroyuki Kitahata, Natsuhiko Yoshinaga, "Effective diffusion coefficient including the Marangoni effect", *Journal of Chemical Physics*, 148, 134906 (2018).
12. Natsuhiko Yoshinaga and Shunsuke Yabunaka, " Theory of active particles and drops driven by chemical reactions: the role of hydrodynamics on self-propulsion and collective behaviours "
Chapter 14 in "Self-organized Motion: Physicochemical Design based on Nonlinear Dynamics" edited by Satoshi Nakata, Véronique Pimienta, István Lagzi, Hiroyuki Kitahata, Nobuhiko J Suemats.
13. Kyongwan Kim, Natsuhiko Yoshinaga, Sanjib Bhattacharyya, Hikaru Nakazawa, Mitsuo Umetsu, and Winfried Teizer, "Large-scale chirality in an active layer of microtubules and kinesin motor proteins", *Soft Matter*, 14, 3221-3231 (2018).

14. Natsuhiko Yoshinaga, Tanniemola B. Liverpool, "Hydrodynamic interactions in dense active suspensions: from polar order to dynamical clusters", *Physical Review E Rapid Communications*, 96, 020603(R) (2017).
15. Natsuhiko Yoshinaga, "Simple models of self-propelled colloids and liquid drops: from individual motion to collective behaviors", *Journal of the Physical Society of Japan Special Topics "Recent Progress in Active Matter"*, 86, 101009 (2017)
16. Shunsuke Yabunaka, Natsuhiko Yoshinaga, "Collision between chemically-driven self-propelled drops", *Journal of Fluid Mechanics*, 809, 205-233 (2016).
17. Yuki Koyano, Natsuhiko Yoshinaga, and Hiroyuki Kitahata, "General Criteria for Determining Rotation or Oscillation in a Two-dimensional Axisymmetric System" *Journal of Chemical Physics*, 143, 014117 (2015).
18. Natsuhiko Yoshinaga, "Spontaneous motion and deformation of a self-propelled droplet", *Physical Review E*, 89, 012913 (2014).
19. Hiroyuki Kitahata, Natsuhiko Yoshinaga, Ken H. Nagai, Yutaka Sumino, "Dynamics of Droplets", in "Pattern Formations and Oscillatory Phenomena" edited by Shuichi Kinoshita (2013)
20. Ken H. Nagai, Fumi Takabatake, Yutaka Sumino, Hiroyuki, Kitahata, Masatoshi Ichikawa, and Natsuhiko Yoshinaga, "Rotational motion of a droplet induced by interfacial tension", *Physical Review E*, 87, 013009 (2013).
21. Natsuhiko Yoshinaga, Ken H. Nagai, Yutaka Sumino, and Hiroyuki Kitahata, "Drift instability in the motion of a fluid droplet with a chemically reactive surface driven by Marangoni flow" *Physical Review E*, 86, 016108 (2012).
22. Natsuhiko Yoshinaga and Philippe Marcq, "Contraction of cross-linked actomyosin bundles", *Physical Biology*, 9, 046004 (2012).
23. Shunsuke Yabunaka, Takao Ohta, and Natsuhiko Yoshinaga, "Self-propelled motion of a fluid droplet under chemical reaction", *Journal of Chemical Physics*, 136, 074904 (2012).
24. Philippe Marcq, Natsuhiko Yoshinaga, and Jacques Prost, "Rigidity sensing explained by active matter theory", *Biophysical Journal*, 101, L33-L35 (2011).
25. Hiroyuki Kitahata, Natsuhiko Yoshinaga, Ken H. Nagai, and Yutaka Sumino, "Spontaneous motion of a droplet coupled with a chemical wave", *Physical Review E (Rapid Communication)*, 84, 015101(R) (2011).
26. Natsuhiko Yoshinaga, Jean-Francois Joanny, Jacques Prost, and Philippe Marcq, "Polarity patterns of stress fibers", *Physical Review Letters*, 105, 238103 (2010).
27. Hong-Ren Jiang, Natsuhiko Yoshinaga, and Masaki Sano, "Active Motion of Janus Particle by Self-thermophoresis in Defocused Laser Beam", *Physical Review Letters*, 105, 268302 (2010)
Editor's suggestion and, Viewpoint in *Physics*, 3, 108 (2010), Debut of a hot "fantastic voyager"

28. Hong-Ren Jiang, Hirofumi Wada, Natsuhiko Yoshinaga, and Masaki Sano, "Manipulation of Colloids by Nonequilibrium Depletion Force in Temperature Gradient", *Physical Review Letters*, 102, 208301 (2009).
29. Takahiro Sakaue and Natsuhiko Yoshinaga, "Dynamics of Polymer Decompression: Expansion, Unfolding and Ejection", *Physical Review Letters*, 102, 148302 (2009)
30. Natsuhiko Yoshinaga, Efim Kats and Avraham Halperin, "On the Adsorption of Two-State Polymers", *Macromolecules*, 41, 7744-7751 (2008)
31. Natsuhiko Yoshinaga, "Folding and unfolding transition in a single semiflexible polymer", *Physical Review E*, 77, 061805 (2008).
32. Natsuhiko Yoshinaga and Kenichi Yoshikawa, "Core-shell structures in single flexible-semiflexible block copolymers: Finding the free energy minimum for the folding transition", *Journal of Chemical Physics*, 127, 044902 (2007)
33. Natsuhiko Yoshinaga, Domonique Bicout, Efim Kats and Avraham Halperin, "Dynamic Core Shell Structures in Two State Models of Neutral Water Soluble Polymers", *Macromolecules*, 40(6), 2201-2209 (2007)
34. Natsuhiko Yoshinaga, Kenichi Yoshikawa and Takao Ohta, "Different pathways in mechanical unfolding/folding cycle of a single semiflexible polymer", *European Physical Journal E*, 17, 485 (2005).
35. Kenichi Yoshikawa and Natsuhiko Yoshinaga, "Novel scenario on the folding transition of a single chain", *Journal of Physics: Condensed Matter*, 17, S2817-S2823 (2005).
36. Natsuhiko Yoshinaga, Kenichi Yoshikawa and Satoru Kidoaki, "Multiscaling in a Long Semiflexible Polymer Chain in Two Dimension" *Journal of Chemical Physics*, 116, 9926 - 9929 (2002).
37. Natsuhiko Yoshinaga, Tatsuo Akitaya and Kenichi Yoshikawa, "Intercalating Fluorescence Dye YOYO-1 Prevents the Folding Transition in Giant Duplex DNA", *Biochemical and Biophysical Research Communications*, 286, 264-267, (2001).

Proceedings:

1. Tomohiro Matsushita, Atsushi Kubota, Naohisa Happo, Kazuto Akagi, Natsuhiko Yoshinaga, and Kouichi Hayashi
"Fast Calculation Algorithm Using Barton's Method for Reconstructing Three-Dimensional Atomic Images from X-ray Fluorescence Holograms"
Zeitschrift für Physikalische Chemie (2015)
2. Natsuhiko Yoshinaga,
"Transition kinetics of a single semiflexible polymer"
Progress of Theoretical Physics Supplement, 161, 397-402 (2006).
3. Natsuhiko Yoshinaga and Kenichi Yoshikawa
"Irreversibility on the Structural Transition under Strain in a Single Semi-flexible Polymer"
AIP Conference Proceedingd, 3rd International Symposium on Slow Dynamics in Complex Systems, Tokuyama, M. & Oppenheim, I. (Eds.), 708, 348-349 (2004).

Invited Talks:

1. Natsuhiko Yoshinaga, "Model Selection of PDE for Pattern Formation", 25th International Congress of Theoretical and Applied Mechanics (ICTAM 2020+1), Online, 23-27 August 2021.
2. Natsuhiko Yoshinaga, "Cell-sized confinement controls generation and stability of a protein wave for spatiotemporal regulation in cells", ReaDiNet 2019, Mathematical analysis for biology and ecology, Nancy, France, 23-25 September 2019.
3. Natsuhiko Yoshinaga, "Geometric control of wave instability in Min oscillations", Tohoku-Lorraine Conference 2019, Nancy, France, 18-20 September 2019.
4. Natsuhiko Yoshinaga, "Collective behaviours of dense active suspensions: the role of hydrodynamic lubrication", CECAM Workshop Emerging behaviour in active matter: computational challenges, Lincoln, UK, 27-29 June 2019.
5. Natsuhiko Yoshinaga, "Model Selection of PDE for Targeted Crystalline Patterns", A3 Soft Matter Workshop 2019, Sendai, Japan, 30 May-1 June 2019.
6. Natsuhiko Yoshinaga, "Geometric control of wave instability in Min oscillations", A3 Soft Matter Workshop 2018, Beijing, China, 8-10 November 2018.
7. Natsuhiko Yoshinaga, "Dynamics of defects in active nematic liquid crystals", China-Japan Symposium on Defects and Cracks in 2018 CSIAM Annual Meeting, Chengdu, China, 14-16 September 2018.
8. Natsuhiko Yoshinaga, "Active Soft Materials: Self-propelled motion and its collective behaviours of colloids and liquid drops", Modeling and Numerical Analysis of Nonlinear Phenomena: Fluid Dynamics, Motion of Interfaces, and Cell Biology, Meiji University, Tokyo, Japan, 6-8 December 2017.
9. Natsuhiko Yoshinaga, "The Hydrodynamics and Collective Behaviours of Self-Propelled Active Systems", A3 Soft Matter Workshop, Tohoku University, Sendai, Japan, 18-20 January 2017.
10. Natsuhiko Yoshinaga, "The Collective Behaviors of Self-Propelled Particles and Drops through hydrodynamic interactions.", Patterns and Waves 2016, Sapporo, Japan, 1-5 August 2016.
11. Natsuhiko Yoshinaga, "The Collective Behaviors of Self-Propelled Particles and Drops through hydrodynamic interactions.", Minisymposium in Dynamics Days 2016, Corfu, Greece, 6-10 June 2016.
12. Natsuhiko Yoshinaga, "The Hydrodynamic Interaction and Collective Behaviors of Self-Propelled Particles and Drops.", Emergent dynamics of out-of-equilibrium colloidal systems at nano- to microscales, CECAM-HQ-EPFL, Lausanne, Switzerland, 18-20 April 2016.
13. Natsuhiko Yoshinaga, "Self-propulsion of a droplet: motility and deformation"

The Ninth IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, University of Georgia, Athens, USA, 1 - 4 April 2015

14. Natsuhiko Yoshinaga, "Active Soft Materials", Mathematics of Fluid Dynamics and Material Science, International Convention Center, Jeju, Korea, 21 - 23 November 2014
15. Natsuhiko Yoshinaga, "Motion and Shape of Drops in Active Soft Materials", IMR Tohoku University-NCTU Joint Workshop on Fusion of Mathematics, Nano-Materials, and Nano-Devices, National Chiao Tung University, Hsinchu, Taiwan, 22 - 23 September 2014
16. Natsuhiko Yoshinaga, "Mechanics of active gels and spontaneous motion of droplets as biologically-motivated systems", RIMS International Conference: "Mathematical Challenge to a New Phase of Materials Science" Kyoto University, Kyoto, Japan, 4 - 8 August 2014
17. Natsuhiko Yoshinaga, "Spontaneous motion and deformation of a droplet driven by chemical reaction", RIMS International Conference: "Sapporo summer conference on dynamics of patterns in materials science", Research Institute for Electronic Science (RIES), Hokkaido University, Sapporo, Japan, 31 July - 2 August 2014
18. Natsuhiko Yoshinaga, "Dynamics of pattern formation in nonequilibrium soft materials" Pattern Formation: mathematics and materials, Australian National University, Canberra, Australia, 29 - 30 April 2014
19. Natsuhiko Yoshinaga, "Spontaneous motion and deformation of a droplet driven by chemical reaction", Dynamics of Suspensions, Gels, Cells and Tissues, Cambridge, UK, 24 - 28 June 2013
in Mathematical Modelling and Analysis of Complex Fluids and Active Media in Evolving Domains at Isaac Newton Institute for Mathematical Sciences (visiting fellow from 1 May to 29 May)
20. Natsuhiko Yoshinaga, "Self-propelled motion and deformation of a droplet driven by chemical reaction", Wetting and Capillarity in Complex Systems, Dresden, Germany, 18 - 22 February 2013
21. Natsuhiko Yoshinaga, Ken H. Nagai, Yutaka Sumino, and Hiroyuku Kitahata, "Self-propulsion of a drop driven by Marangoni flow", Regional Bio-Soft Matter Workshop: Non-equilibrium statistical Physics in Bio-Soft Systems, Taipei, Taiwan, 27 - 29 October 2011

Contributed Talks:

1. Natsuhiko Yoshinaga
"Spontaneous motion and deformation of a self-propelled droplet"
Active Matter: Cytoskeleton, Cells, Tissues and Flocks
The Kavli Institute for Theoretical Physics, California, USA, 13 March 2014 (visiting fellow from 24 Feb to 14 Mar)
2. Natsuhiko Yoshinaga
" Spontaneous motion and deformation of a droplet driven by chemical reaction"

APS March Meeting 2014
Colorado Convention Center, Denver, USA, 3 - 7 March 2014

3. Natsuhiko Yoshinaga
"Dynamics of shape in nonequilibrium soft materials"
The AIMR International Symposium 2014
WPI-AIMR Tohoku University, Sendai, Japan, 17-20 February 2014
4. Natsuhiko Yoshinaga
"Active Motion of Janus Particle by Self-thermophoresis"
10th International Meeting on Thermodiffusion
Brussels, Belgium, 4 - 8 June 2012
5. Natsuhiko Yoshinaga
"Hydrodynamics of self-propulsion induced by inhomogeneous temperature distribution"
Workshop on Active Matter - Physics of Biokinetics -
Tokyo, Japan, 24 - 25 July 2009
6. Natsuhiko Yoshinaga
"Folding kinetics of a single semiflexible polymer"
YITP Workshop "Soft Matters as Structured Materials"
Yukawa Institute for Theoretical Physics, Kyoto, Japan, 1 - 3 August 2005
7. Natsuhiko Yoshinaga and Kenichi Yoshikawa
"Folding Transitions and Organized Structures in a Single Polymer Chain"
5th International Symposium "Molecular Mobility and Order in Polymer Systems"
The House of Scientist, St. Petersburg, Russia, 20 - 24 June 2005

Poster presentation:

1. Natsuhiko Yoshinaga
"The interaction of self-propelled drops with deformation"
Lorentz Center International Center for Workshops in the Sciences, "Active Liquids"
Lorentz Center, Leiden, Netherland, 21 - 25 September 2015
2. Natsuhiko Yoshinaga
"Spontaneous motion and deformation of a self-propelled droplet"
International Symposium on Fluctuation and Structure out of Equilibrium 2015
Kyoto University, Kyoto, Japan, 20 - 23 August 2015
3. Natsuhiko Yoshinaga
"Dynamics of Ordered Patterns and Defects"
NanoMat 2015
Campus de Beaulieu, Rennes, France, 27 - 30 May 2015
4. Natsuhiko Yoshinaga
"Dynamics of Ordered Patterns and Defects"
The AIMR International Symposium 2015
WPI-AIMR Tohoku University, Sendai, Japan, 17 - 19 February 2015
5. Natsuhiko Yoshinaga
"Self-propulsion and deformation of a fluid droplet"

Workshop on Active Soft and Biological Matter
Les Houches, France, 30 September - 5 October 2012

6. Natsuhiko Yoshinaga, Ken H. Nagai, Yutaka Sumino, and Hiroyuku Kitahata
"Self-propulsion of a drop driven by Marangoni flow"
Workshop: Collective Dynamics and Pattern Formation in Active Matter Systems
Dresden, Germany, 29 August - 16 September 2011
7. Natsuhiko Yoshinaga, Ken H. Nagai, Yutaka Sumino, and Hiroyuku Kitahata
"Polarity Patterns of Stress Fibers"
7th International Conference on Biological Physics 2011
UCSD, USA, 22 - 24 June 2011
8. Natsuhiko Yoshinaga, Jean-Francois Joanny, Jacques Prost, and Philippe Marcq
"Self-propulsion of a drop driven by Marangoni flow"
Far-From-Equilibrium Dynamics
Kyoto (RIMS), Japan, 1 - 4 January 2011
9. Natsuhiko Yoshinaga, Ken H. Nagai, Yutaka Sumino, and Hiroyuku Kitahata
"Self-propulsion of a drop driven by Marangoni flow"
International Symposium on Non-Equilibrium Soft Matter 2010
Nara, Japan, 17 - 19 August 2010
10. Natsuhiko Yoshinaga, Ken H. Nagai, Yutaka Sumino, and Hiroyuku Kitahata
"Self-propulsion of a drop driven by Marangoni flow"
International Soft Matter Conference ISMC2010
Granada, Spain, 5 - 8 July 2010
11. Natsuhiko Yoshinaga
"Thermophoresis and induced flow near surface under temperature gradient"
Soft Active Materials: From Granular Rods to Flocks, Cells and Tissues
Syracuse, USA, 18 - 21 May 2009
12. Natsuhiko Yoshinaga, Efim Kats, and Avraham Halperin
"Two-state polymers: conformational transition and adsorption"
Jülich Soft Matter Days 2008
Bonn, Germany, 11 - 14 November 2008
13. Natsuhiko Yoshinaga, Dominique Bicoût, Efim Kats, and Avraham Halperin
"Dynamic Core-Shell Structures in Two-State Polymers"
International Workshop on Bio-Soft Matter 2008
Tokyo, Japan, 9 - 10 June 2008
14. Natsuhiko Yoshinaga
"Folding and unfolding kinetics of a single semiflexible polymer"
International Soft Matter Conference
Aachen, Germany, 1 - 4 October 2007
15. Natsuhiko Yoshinaga
"The mesoscopic model for polymer translocation through membrane"
4th Peptide Engineering Meeting
Kyoto, Japan, 10 - 11 November 2006

16. Natsuhiko Yoshinaga
"Folding kinetics of a single semiflexible polymer"
Sitges Conference
Sitges, Spain, 5 - 9 June 2006
17. Natsuhiko Yoshinaga
"Transition kinetics of a single semiflexible polymer"
9th Tamura Symposium: Frontiers in Dynamics, Physical and Biological Systems
Tokyo, Japan, 22 - 24 May 2006
18. Natsuhiko Yoshinaga
"The kinetics of conformational change in single macromolecules: Semiflexible polymers in the folding and unfolding transition"
OIST International Workshop on Single Molecule Analysis
Bankoku Shinryokan, Okinawa, Japan, 17 - 21 April 2006
19. Natsuhiko Yoshinaga
"Different pathways in mechanical unfolding/folding cycle of a single semiflexible polymer"
European Polymer Congress 2005
Moscow State University, Moscow, Russia, 26 June - 1 July 2005
20. Natsuhiko Yoshinaga
"Phase transition in a single semiflexible polymer: hysteresis with temperature cycling"
The International Workshop on Physics of Softmatter Complexes
Tokyo Metropolitan University, Tokyo, Japan, 29 December - 2 November 2004
21. Natsuhiko Yoshinaga
"A Semi-flexible Polymer under Strain: Structural Transition and Hysteresis"
The 5th International Conference on Biological Physics
Gothenburg, Sweden, 23 - 27 August 2004
22. Natsuhiko Yoshinaga
"A Semi-flexible Polymer under Strain: Structural Transition and Hysteresis"
International Workshop on Dynamics of Complex Fluids
Yukawa Institute, Kyoto University, Kyoto, Japan, 8 - 10 March 2004
23. Natsuhiko Yoshinaga
"Irreversibility on the Structural Transition under the Strain in a Single Semi-flexible Polymer"
(AIP Conference Proceedings, 708, 348-349 (2004))
Slow Dynamics in Complex Systems
Tohoku University, Sendai, Japan, 3 - 8 November 2003
24. Natsuhiko Yoshinaga and Kenichi Yoshikawa
"Irreversibility on the Structural Transition under the Strain in a Single Semi-flexible Polymer"
Frontiers in Chemical Biology: Biomolecular Dynamics and Force Generation, Royal Society of Chemistry
Hulme Hall, University of Manchester, UK, 4 - 6 September 2003