CURRICULUM VITAE
Laura Finzi

Physics Department, Emory University
400 Dowman Dr, Atlanta, GA 30322
tel. 404-727-4930; fax: 404-727-0873

e-mail: lfinzi@emory.edu
http://www.physics.emory.edu/faculty/finzi/

EDUCATION

1990 Ph.D. in Chemistry, University of New Mexico, Albuquerque, NM.

1987 Master's in Chemistry, University of New Mexico, Albuquerque, NM.

1984 Laurea in Industrial Chemistry, University of Bologna, Bologna, Italy.

PROFESSIONAL ACTIVITY

September 2012 - present: Professor, Physics Department, Emory University.

July 2005-August 2012: Associate Professor, Physics Department, Emory University.

June 1999-June 2005: Tenured Researcher and Group Leader, Biology Dept, University of Milano, Italy.

1993-May 1999: Researcher (tenured in '96), Biology Dept, University of Milan, Italy.

1992-1993: Post Doctoral Fellow**,** Biochemistry Dept., Brandeis University (Jeff Gelles' group).

1990-1991: Post Doctoral Fellow**,** Chem. Dept., **University of New Mexico** (October-December 1990)**,** Institute of Molecular Biology, **University of Oregon** (January-December 1991) (Carlos Bustamante's group).

HONORS and AWARDS

2023: Invited speaker at the *School on Biophysics*, Ettore Majorana Foundation and Centre, Erice, Italy, Oct 16-20.

2022: Publication # 51 was cited as a landmark in the field by the NASEM first decadal Report on Biological Physics/Physics of Living Systems. The same publication has been cited 2,412 times as of December 2022.

2022: Member of the Executive Council of the Senate of the Emory College of Arts and Science

2022: Member of the Emory College of Arts and Science Faculty Senate

2022: Invited speaker in the *Living Histories* series (https://iyerbiswas.com/outreach/livinghistories/)

2020: Member of the Biophysical Society Nomination Committee.

2020: Founding co-Chair of the "Single-Molecule Forces, Manipulation and Visualization" subgroup of the Biophysical Society

2018: Member of the Cell and Molecular Biology Research Program at the Emory University Winship Cancer Institute.

2018: Recognized for "Excellent Teaching" by Phi Beta Kappa Mentees both in the Spring and Fall semesters.

2018: Invited speaker, *DNA supercoiling Symposium*, 62nd Biophysical Society Meeting, San Francisco, February 18.

2017-present: Editorial Board Member of *Biophysics Reviews* (*BREVS*)

2017: Organized the "South-East Single molecule Biophysics meeting

2016 - present: Affiliated Faculty in the Emory Chemistry Department

2016: Editor Special Issue "Supercoiling in DNA-protein interactions" of *Biophysical Reviews*, Springer.

2015 - present: Faculty member of the Emory Graduate Division in Biological and Biomedical Sciences (GDBBS) – Biochemistry, Cell and Developmental Biology (BCDB) program.

2014 - 2015: co-Chair and, then, Chair of the "Nanoscale Approaches to Biology" Subgroup of the Biophysical Society.

2014: Invited speaker, 58th Biophysical Society Meeting, San Francisco, February 18.

2013: Elected to Emory's MilliPub Club (for >1000 citations on Science 258, 1122 (1992).

2013: Co-organizer of the Atlanta Area Molecular and Cellular Biophysics Symposium.

2012 - 2018: Standing Member of the NIH Molecular Structure and Function – C (MSFC) Study Section

2012 - 2014: Member of the Biophysical Society Program Committee.

2012: Moderator (in representation of the *Biophysical Journal*) of the Cell Press podcast "Single Molecule Biology" presented by Steve Block, National Lecturer at the 2012 Biophysical Society Meeting.

2011-2013: Member of the Biophysical Society Executive Board.

2010: Member of the Biophysical Society Nomination Committee.

2007 - 2011: Emory Computational and Life Sciences Core Faculty.

7/1/08 - 6/30/14: Editorial Board Member, Biophysical Journal (two terms).

2008 - 2011: Elected member of the Biophysical Society Council.

2008 - 2011: Member of the Biophysical Society Special Programs Committee.

2000 - 2004: Invited referee for EEC Framework Programmes grant applications

2005 - present: NSF and HFSPO reviewer.

1990: Dow-Smith award.

1988 - 89: American Association of University Women for the academic year.

1988: UNM Chemistry Dept. award.

SCIENTIFIC SOCIETY MEMBERSHIPS

Biophysical Society (1989 – present), American Physical Society (2009 – present), American Chemical Society (2019), American Association for the Advancement of Science (2023 –).

PEER REVIEW ACTIVITIES

Reviewer for NSF Div-Bio Infrastructure Major Research Instrumentation (DBI-MRI)

Reviewer for peer-reviewed, scientific journals such as *Cell*, *Physical Review Letters*, *Physical Reviews E*, *Proceedings of the National Academy of Sciences* (*PNAS*), *Journal of Molecular Biology*, *Biophysical Journal*, *Nucleic Acids Research* (*NAR*), *European Biophysics J*, *Cytometry A*, Nature Publishing Group (npg) Journals, *eLife*, JoVE, etc.

Reviewer for NASEM Ford Foundation Fellowships, Physical Sciences, Mathematics, & Computer Science

Reviewer for NIH ZRG1 F04B-H Biochemistry and Biophysics of Biological Macromolecules

Reviewer for NIH (NIAID and MGA), NSF and HFSPO.

Reviewer of NIH X02 applications

Member of the "*Ad hoc*" on-site review panel of the NIH P40 Center in Albany NY (ZRG1 GGG-T (40) P study section)

Standing member of the NIH Molecular Structure and Function C (MSFC) study session, Oct 2012 – June 2018.

"*Ad hoc*" reviewer for the NIH MSFC study section prior to Fall 2012.

External reviewer for tenure and promotion at various domestic and foreign Universities.

External reviewer for the Dutch governent (FOM), the Belgian Research Council and the Swiss National Science Foundation.

Referee for EEC Framework Programme 5 (FP5) and FP6 grant applications (2000-2004).

COMMITTEES AND SERVICE

Emory Physics Department:

CUWiP, Auburn, January 2023. Presided the recruitment table at the conference dinner.

Founding Chair, DEI committee

Led Physics Department Research "Ramp-up after Covid shut down" effort (Spring 2020)

Search request proposal committee (advising the Department Chair and the Condensed Matter Group), Fall 2019

Teaching mentor for assistant professor Daniel Sussman, 2019-present

Research mentor for colleagues Minsu Kim, 2012-present and Shashank Shekhar, 2020-present

Montag Award committee member, 2015 – present

Biophysics Major, Chair, Spring 2015 - present

Search Committee, Chair, 2010-2011, 2011-2012, 2017 - 2018

Strategic Committee, 2016 – 2018

Colloquium Committee, 2011-2012, 2016 - 2018

Director of Graduate Studies, 2008-2011

Jackson Fellowship for undergraduate research in Physics, selection committee, 2006 - 2010.

Ph.D. Advisory Committee, Qualifier Proposal Committee, Ph.D. Defense Committee member for a number of students in the Physics, Chemistry and BCDB graduate programs at Emory, in the Physics department at GATech, and at foreign Universities, 2006 - present.

Emory College:

AWIS's Women in STEM Panel, February 8th 2023

Member of the Emory College Faculty Senate Executive Committee, 2022 - present

Co-founder and Chair for ECAS of Women in Science at Emory (WiSE), 2017 - present

Committee for the establishment of a Visiting Faculty Fellow program for the Emory Institute of the Liberal Arts, 2021

Committee for Academic Standards (elected by Emory faculty), 2018-2021

Co-Chair of the Faculty Science Council, 2017 – 2020

Faculty interviewer during Emory Scholar Finalists' Week, March, 2017.

Hosted Nobel Laureate, Prof. W.E. Moerner for a Hightower Lecture, April 2015.

Emory Diversity Graduate Fellowship Committee, 2014-2015.

Emory Tenure and Promotion Committee (elected by Emory faculty), Fall 2013 – 2016.

Emory College Curriculum Committee (elected by Emory faculty), Fall 2012 – 2015.

Emory Space Committee, Member, 2014-2016.

Emory Tibetan Science Initiative (ETSI), taught introductory physics to Tibetan monks in the monastery of Drepung, India, June, 2014.

Clare Booth Luce Fellowship (CBL) committee member, 2012-2013.

Pre-major Advising Connections at Emory (P.A.C.E.), 2009-present.

Member of the Marshall Nomination committee (Fall 2009).

Chair of the URC Math and Science subcommittee (2006 – Spring 2009).

Member of the search committee for the Computational and Life Sciences (CLS) strategic initiative, 2007 – Spring 2009.

Freshman Advising and Mentoring at Emory (F.A.M.E.) advisor (Fall '06 and '07).

External member of the search committee for the Chemistry Dept., 2007-08.

Member of the committee for the selection of the applications to the INSPIRE program (2007).

Emory University

Panelist, Emory Office of Research Webinar on S10 & MRI grants.

BCDB graduate program recruiting activities, 2016-present.

Tenure and Promotion Advisory Committee (TPAC; advises the President and the Provost)), 2018-2021.

Faculty Life Course Committee, 2016-2021

Outside Emory

2021: Mentor for an NSF EPSCoR application by Dr. Lillian at the University of South Alabama

2020-2022: co-founder and co-Chair with Prof Mark Williams (Northeastern University) of the Biophysical Society Subgroup "*Single Molecule Forces, Manipulation and Visualization*"

2017: Organizer of the Southeastern Single-Molecule Biophysics Networking Meeting, April 6-9.

2015-2017: Mentor for the NIH-SCORE Program to Dr. Lorenzo Brancaleon in the department of Physics and Astronomy at UT San Antonio.

2009; 2015: co-founder; Chair of the Biophysical Society Subgroup "*Nanoscale Biophysics*"

Chaired and Co-Chaired several scientific sessions at different domestic and international meetings and conferences.

ACTIVE COLLABORATIONS

Dr. David Dunlap, Department of Physics, Emory University.

Dr. Irina Artzimovich, Microbiology Department, Ohio State University.

Dr. Marco Cosentino Lagomarsino, European Institute of Molecular Oncology and Department of Physics, University of Milano, Italy

Dr. Vittore Scolari, Physics of Living Systems, Institute Marie Curie, France.

Dr. Andrew Spakowitz, Chemical Engineering, Material Science and Engineering, Applied Physics, Stanford University

Dr. Radhika Subramanian, Department of Molecular Biology, Simches Research Center, Massachusetts General Hospital, Harvard Medical School.

Dr. Seth Childers, Department of Chemistry, University of Pittsburgh.

Dr. Francesca Storici, School of Biology, GATech.

Dr. Miguel Garcia-Diez, department of pharmacological Sciences, Stony Brooks University.

Dr. Fenfei Leng, Florida International University.

Dr. Sankar Adhya, NIH NCI.

Dr. Sachin Goyal, School of Engineering, University of California at Merced.

Dr. Francesco Mantegazza, Universita' degli Studi Bicocca, School of Medicine, Milano, Italy.

Dr. Renhao Li, Department of Pediatrics, School of Medicine, Emory University.

TEACHING and MENTORING

At Emory University:

"Physics in Biology and Medicine" (PHYS 365), Spring 2022-23.

"Electrodynamics and Magnetism" (PHYS 365), Fall 2019.

"Biological Physics" (PHYS 434/534; graduate), Fall 2017, 2018 and Spring 2021.

"Freshman Seminar: from Energy to information and life" (PHYS 190), Spring and Fall 2016, Fall 2022.

"Foundations in BCDB-I" (BCDB 501), Fall 2015 – 2021 (these are 1-2 weeks modules).

"Thermal Physics" (PHYS 421), Fall 2012.

"Introductory Physics" (PHYS 142), Springs 2009 – 2012, 2014.

"Single-molecule biophysics" (PHYS 380, now Phys 556), Spring 2006, 08, 13, 15 – 20; Fall 2021.

"Biomacromolecules" (PHYS 380, now PHYS 552), Fall 2006 - 2009, 2011 and 2015.

"How things work" (PHYS 121), Fall 2010.

"Freshman Seminar: Physics and Physiology" (PHYS 190), Spring 2007.

Mentor for an NIH-SCORE program's investigator at the University of Texas in San Antonio (UTSA)

Trained 42 undergraduate students, 1 pre-med technician, 16 graduate students and 12 postdocs. Trained People of color (12 undergraduates, 7 graduates, 1 postdoc), Blacks (8 undergraduates, 1 technician, 2 postdocs), Latinx (2 undergraduates, 1 graduate, 2 postdocs). Full list may be viewed at: http://www.physics.emory.edu/faculty/finzi/labmembers.html

Mentor of undergraduate students in the following Emory programs: Physics undergraduate research (PHYS 499R), Summer Undergraduate Research at Emory (SURE), Scholarly Inquiry and Research at Emory (SIRE), Interdisciplinary Scence Program for Integrating Research into Education (INSPIRE).

Mentor of undergraduate Honor students (Paul Liebesny, 2008-09; Chandler Fountain, 2011-12; Hamin Jeon, 2012-2013; Crissy Hendrickson and Geethika Malla, 2018; Zixing Zheng and Joe Piccolo, 2020; Stefano Martin, Gustavo Borjas, Sam Miller, 2021; Anna Eligulashvili, 2022). All graduated with Highest Honors, but three who received High Honors.

Mentor of graduate students in the Problems and Research to Integrate Science and Mathematics (PRISM) program.

Mentor of a HHMI/STEP curriculum development fellow (2012 - 2013).
Sponsored and helped drafting several intra- and extramural applications by graduate students and postdoctoral fellows.

At the University of Milano:

1993-2005: laboratory course on enzymology and electron transport to 3rd year undergraduate students, classes on microscopy to graduates and postgraduates.

INVITED SEMINARS and LECTURES

Department of Physics and Astronomy, University of Texas, Rio Grande Valley, February 3rd, 2023.

Conference of Undergraduate Women in Physics, Auburn, Alabama, January 21, 2023

International School of Physics Enrico Fermi on "Multimodal and Nanoscale Microscopy", Varenna, Italy. July 11-16th, 2022.

American Physical Society D-Bio Living Histories, April 20, 2022;
https://www.youtube.com/watch?v=wPAuAnzBBgw.

Nanoscopy 2.0, 6th NIC@IIT, Italian, Institute of Technology, Genova, Italy, Nov 29 - Dec 3, 2021 (Keynote speaker).

University of Tennessee, Knoxville, Department of Biochemistry & Cellular and Molecular Biology (BCMB) seminar speaker and guest lecturer in the 'Special Topics in Molecular Machines.' BCMB 615 graduate course. March, 31, 2021.

Kennesaw University, Physics Department, "DNA Topology and Transcription Regulation", March 6, 2020

XXII Annual Linz Winter Workshop on Force Spectroscopy, Linz, Austria, Jan 31-Feb 3, 2020.

The 31st Frontiers in Nucleic Acid Chemistry Symposium, South East Regional Meeting of the American Chemical Society (SERMACS), Savannah, Oct 21-22, 2019

"Single-Molecule Force Spectroscopy Workshop: Progress and Prospects in Biological and Chemical Sciences", Duke University, Aug 29-Sep 1, 2019.

"Single Molecule Biophysics (SMB)" Winter Conference, Center for Physics, Aspen, Jan 6-11, 2019.

Emory Public Lecture on 2018 Nobel Prize in Physics, November 2018.

Emory Biochemistry Department, November 1, 2018.

Clemson University, Physics Department seminar series, September, 2018.

Kennesaw University, Key-note speaker, APS-sponsored symposium, September 15th, 2018

University of Illinois at Chicago, Physics Department seminar series, April 18th, 2018.

Florida International University, Physics Department seminar series, March 30th, 2018.

62nd Biophysical Society Meeting, symposium on "DNA supercoiling", San Francisco, February 17-21, 2018.

"Single Molecule Biophysics (SMB)" Winter Conference, Center for Physics, Aspen, Jan 4-9, 2017.

Fifth Global Biotechnology Congress 2017, Session lecture, Boston, July 10 - 13, 2017, declined.

North Dakota State University, Physics Department seminar series, Spring 2017.

Georgetown University, D.C., 9/22/2016

Scientific Symposium in honor of Carlos Bustmante 65th b-day, UC Berkeley, 5/21/2016

North Carolina State University, Physics Department colloquium series, 10/05/2015

Aarhus University, Physics Department, Distinguished iNANO Lecture, Aarhus, Denmark, 8/14/2015

NHLBI, Biochemistry and Biophysics Center Guest Speaker Seminar Series, 5/27/2015

Emory University, Chemistry Department, Distinguished Visiting Researchers Seminar Series, 5/4/2015

59th Biophysical Society Annual Meeting, platform "DNA Replication & Transcription", Baltimore, MD. February 11, 2015.

"Single Molecule Biophysics (SMB)" Winter Conference, Center for Physics, Aspen, Jan 4-9, 2015.

Cornell University, Biophysics seminar Series, March 12, 2014.

58th Biophysical Society Meeting, symposium on "Biophysics of Epigenetic Switches", February 18, 2014.

Auburn University, Physics Department, January 17, 2014.

UT at San Antonio, Physics Department, October 25, 2013.

Emory University, Atlanta Area Cell and Molecular Biophysics Symposium, Atlanta, September, 2013.

Atlanta Science Tavern (http://www.meetup.com/AtlantaScienceTavern/), March 23, 2013.

"Single Molecule Biophysics (SMB)" Winter Conference, Center for Physics, Aspen, Jan 5 - 11, 2013.

Mechanobiology workshop, Singapore, November 7-10, 2012.

6th Mechanobiology Conference, 'Mechanobiology of Chromatin and Transcription', Singapore, November 12-14, 2012.

Emory Emeritus College (http://www.emory.edu/emeritus/), September 10, 2012;

Italian Institute of Technology, Genova, Italy, July 3, 2012;

University of Texas at Austin, Department of Physics, 6/14/2011;

University of Alabama at Birmingham, Department of Biochemistry and Molecular Genetics, 1/28/2011;

AAPT National Winter Meeting, Jacksonville, FL, January 8-12, 2011 (Could not go);

"Statistical physics and topology of polymers with ramifications to structure and function of DNA and proteins", Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, Japan, 8/2-6/2010. This was a satellite meeting of the XXIV International Conference on Statistical Physics, Cairns, Queensland, Australia, 19-23 July, 2010. (Did not accept invitation).

Small Systems Biology Meeting, May 6-8, 2010, Dragor, Denmark;

South East Workshop on Soft Materials, GATech, Atlanta, May 13, 2010

University of Puerto Rico at Río Piedras, Department of Chemistry, San Juan, PR, 5/17/2010. Supported by the NIH-RISE Program (Research Initiative for Scientific Enhancement),

American Physics Society March Meeting, A10: Focus Session: Single Molecule Biophysics and Chemical Physics Contributed talk. Portland, Oregon, March 15–19, 2010 (Did not go due to teaching conflict);

7th European Biophysical Societies Association (EBSA) Meeting, Genoa, Italy, July 11-15th, 2009.

"From DNA-inspired physics to physics-inspired biology", Intl. Center for Theoretical Physics, Trieste-Miramare, Italy, June 1-5th, 2009.

109th General Meeting of the American Society for Microbiology, Philadelphia, PA, May 17-21, 2009.

"DNA loop formation, nucleosome positioning, and transcriptional regulation", APS March Meeting Symposium, Division of Biological Physics, Pittsburg, 3/16-20, 2009

Georgia Institute of Technology, Chemistry Department Seminar Series, February 24th, 2009

University of Maryland, Biophysics Symposium on “Single Molecules”, November 17th, 2008.

Emory School of Medicine, Biochemistry Department Seminar series, October 16th, 2008.

Fall meeting of the Southeast Section of APS-Physics, Biophysics session. November 8-10, 2008, Nashville, TN (declined).

“Mathematics of DNA Structure, Function, and Interactions”, part of the 2007 program focused on Molecular and Cellular Biology at the Institute for Mathematics and its Applications (IMA). September 15-21, 2007. The University of Minnesota, Minneapolis. On-line talk available at: http://www.ima.umn.edu/2007-2008/W9.16-21.07/abstracts.html#Finzi-Laura

Workshop "Mechanics of Life: from Biomolecules to Molecular Machines". June 11-13, 2007, University of Michigan, Ann Arbor. On-line talk available at: http://www.umich.edu/~mctp/SciPrgPgs/events/2007/mechlife/sci.pro.fin.html

Drexel University, Physics Department, Colloquium series, 3/1/07

“Single Molecule Biophysics (SMB)” Winter Conference, Center for Physics, Aspen, Feb 4-10, 2007.

Contributing speaker at the Gordon conference on “Single-molecule Approaches to Biology”, Colby-Sawyer College, New London, NH, 18-23 June, 2006

"New Physical Approaches to Molecular and Cellular Machines" workshop at the Kavli Institute for Theoretical Physics, May 29-June 4, 2006. On-line talk available at: http://online.kitp.ucsb.edu/online/biomachine06/

"Phages, Experiments and Modeling", workshop organized by the Center for Models of Life, Niels Bohr Institute, Dracor, Denmark, May 4-6, 2006

HFSP Fifth Awardees Annual Meeting, Natcher Conference Center, NIH, Bethesda, MD, June 5-8 2005

Workshop on Biopolymers: Thermodynamics, Kinetics and Mechanics of DNA, RNA and Proteins”, The Abdus Salam International Center for Theoretical Physics, Trieste, Italy, May 30-June 3, 2005

“DNA, Mathematics and Mechanics”, Lecce, Italy, May 26-28, 2005

INFM School on “Single Molecule Biophysics”, Villa Gualino, Torino, 6-12/9/2004.

“Topological modifications of DNA in transcriptional regulation”, Waksman Institute, Rutgers University, NJ, USA, 21/1/2004

“Topological Modifications of DNA: a regulatory mechanism of gene expression”, Physics Department, Emory University, GA, USA, 9/2/2004.

Invited lecturer in the session dedicated to "Nanovideoimaging".in the course entitled "Imaging techniques in animal and human research : can Space help Biology", European University of Studies, Toulouse, France 15-19/9/2003.

13th Conversation in Albany, SUNY, Albany NY, USA, 17-21 June, 2003.

“DNA topological modifications in transcriptional regulation: a study at the single molecule level” University of Lausanne, Switzerland, 24/3/2003.

“DNA topological modifications in the control of transcription” University of Twente, NL, 12-13/12/2002.

Invited lecturer in the National School of Biophysics, Genova 1-7/12/ 2002.

“Rivelazione dinamica di nanostrutture biologiche con tecniche di singola molecola” LXXXVIII Congresso Nazionale Società Italiana di Fisica (SIF), Alghero 26/9-1/10, 2002.

“Studi Biologici a livello di singola molecola”, Dipartimento di Biochimica, Università Statale degli Studi di Milano, 18/4/2002.

“Modificazioni topologiche del DNA durante la trascrizione: studio su singole molecole”, Simposio “Osservando il genoma in azione”, Istituto Lombardo, Accademia di Scienze e Lettere, Milano, 4/4/2002.

“Control of gene expression: study of the architectural interactions between transcriptional factors and DNA”, CNI, NIH, Bethesda, MD, USA, 28/2/2001.

“Control of gene expression: study of the architectural interactions between transcriptional factors and DNA”, Howard Hughes Medical Institute, Center for Single Molecule Biophysics, School of Medicine and Biomedical Sciences, State University of New York at Buffalo, NY, USA, 26/2/2001.

"DNA nanomanipulation and visualisation at the single molecule level", Laboratoire de Microbiologie et Génétique

Moléculaire (UPR 9007, CNRS), Toulouse, France, 1/12/2000.

"Insights from single molecule studies of transcriptional, photosynthetic and motor proteins", Natl. Cancer Institute, NIH, Bethesda, MD, 7/4/2000.

"Insights from single molecule studies of transcriptional, photosynthetic and motor proteins", Department of Biochemistry and Molecular Biology, SUNY Health Science Center, Syracuse 5/4/2000.

"DNA Elasticity and Enzyme-Mediated Looping Studied by Single Molecule Microscopy", DIBIT (Dipartimento di Biotecnologie), HSR (Ospedale San Raffaele), Science Park, 19/5/1999.

"DNA Elasticity and Enzyme-Mediated Looping Studied by Single Molecule Microscopy", Department of Chemistry, New Mexico University, 25/3/1999.

"DNA Elasticity and Enzyme-Mediated Looping Studied by Single Molecule Microscopy", Department of Zoology and Genetics, Iowa State University, 22/3/1999.

PUBLICATIONS (Links to the most significant publications are available on the Finzi Lab web site: http://www.physics.emory.edu/faculty/finzi/labmembers.html;
Complete List of Published Work in MyBibliography:
http://www.ncbi.nlm.nih.gov/myncbi/browse/collection/40647244/?sort=date&direction=descending)

1. Jin Qian, Allison Cartee, David Dunlap, Irina Artsimovitch, Laura Finzi "Transcription Through Roadblock Systems Reveals a Hybrid Transit Mechanism" BIORXIV/2023/522798.
2. Jin Qian, David Dunlap and Laura Finzi, "A Thermodynamic Model of Bacterial Transcription." Physical Review E, 1 October 2022; Vol. **106**, No. 4; DOI: 10.1103/PhysRevE.106.044406.
3. Yue Lu, Gustavo Borjas, Christine Hendrickson, Zsuzsanna Vörös, David Dunlap, Keith Shearwin and Laura Finzi, "Proteins mediating different DNA topologies block RNAP elongation with different efficiency." *FEBS Letters*, 2022, **596**, 1994-2006; doi:10.1002/1873-3468.14447. Editor's choice-Journal cover.
4. Wenxuan Xu, Yan Yan, Irina Artsimovich, David Dunlap and Laura Finzi, "Positive supercoiling favors transcription elongation through lac repressor-mediated DNA loops", *Nucleic Acids Research **50***, 2826-2835, 2022.
5. Alexander Zhang, Yan Yan, Fenfei Leng, David Dunlap, and Laura Finzi, "Ionic strength modulates HU protein-induced supercoiling." BIORXIV/2021/464438.
6. Yan Yan, Wenxuan Xu, David D. Dunlap and Laura Finzi, "Negative DNA supercoiling makes protein-mediated looping deterministic and ergodic within the bacterial doubling time", *Nucleic Acids Research* 2021, **49**(20) 11550-11559; https://doi.org/10.1093/nar/gkab946.
7. Domenico Salerno, Francesco Mantegazza, Valeria Cassina, Matteo Cristofalo, Qing Shao, Laura Finzi, David Dunlap, "Nanomechanics of negatively supercoiled diaminopurine-substituted DNA", *Nucleic Acids Research*, Volume 49, Issue 20, Pages 11778–11786, 18 November 2021; PubMed PMID: 34718727.
8. Joe Piccolo, Josh Mendez Harper, Wenxuan Xu, Daniel Kovari, David Dunlap, Laura Finzi, "Force spectroscopy with electromagnetic tweezers", *Journal of Applied Physics* **130,** 134702 (2021). Featured in SciLight: https://doi.org/10.1063/10.0006622; DOI: 10.1063/10.0006622
9. Daniel T. Kovari, David D. Dunlap, Eric Weeks and Laura Finzi, "Model-free 3D localization with precision estimates for bright field imaged particles" *Optics Express*, **27**(21), 29875-29895, 2019.
10. Suparna Sarkar, Sachin Goyal, Ning Gao, John Mack, Benito Thompson, David Dunlap, Krishnananda Chattopadhyay, Laura Finzi, "Specifically bound Lambda repressor dimers promote adjacent non-specific binding", *PLOS One*, **13**(4): e0194930, 2018.
11. Yan Yan, Yue Ding, David Dunlap and Laura Finzi, "protein-mediated loops in supercoiled DNA create large topological domains", *Nucleic Acids Research*, 2018, May 18;**46**(9):4417-4424. *doi: 10.1093/nar/gky153*.
12. Yan Yan, Fenfei Leng, Laura Finzi and David Dunlap, "Protein-mediated looping of DNA under tension requires supercoiling", *Nucleic Acids Research*, 2018, Mar 16;**46**(5):2370-2379**.** doi: 10.1093/nar/gky021.
13. Zsuzsanna Voros, Yan Yan, David D. Dunlap and Laura Finzi, "Protein-mediated DNA looping enhances roadblocks", *Protein Science*, **26**(7):1427-1438 (2017).

14. Suleyman Ucuncuoglu, Krysta Engel, David D.Dunlap, David Schneider, Laura Finzi, "Direct characterization of transcription elongation by RNA polymerase I", *PLoS One*, 2016 Jul 25;**11**(7):e0159527. doi: 10.1371/journal.pone.0159527.

15. Monica Fernandez, Qing Shao, Chandler Fountain, Laura Finzi, David D. Dunlap, "E. coli gyrase fails to negatively supercoil diaminopurine-substituted DNA", *JMB*, **427**, 2305-2318, 2015.

16. Yue Ding, Carlo Manzo, Geraldine Fulcrand, David Dunlap, Fenfei Leng and Laura Finzi, "DNA Supercoiling: a Regulatory Signal for the Lambda Repressor", *PNAS*, **111**(43), 15402-15407, 2014.

17. Sandip Kumar, Carlo Manzo, Chiara Zurla, Suleyman Ucuncuoglu, Laura Finzi and David Dunlap, "Enhanced Tether Particle Motion Analysis Reveals Viscous Effects", *Biophysical J*., **106**(2), 399-409, 2014.

18. Ning Gao, Laura Finzi and David D. Dunlap, "Purification of Bacteriophage Lambda Repressor", *Protein Expression and Purification*, **91**, 30-36, 2013.

19. Marta Adelina Mendesa, Rosalinda Fiorella Guerra, Markus Christian Berns, Laura Finzi, Martin M. Kater and Lucia Colombo, "MADS-domain Transcription Factor Complex Induced Short-Range DNA Loop Formation is Essential for Target Gene Expression in Arabidopsis", *Plant Cell*, **25**, 2560-2572, 2013.

20. Haowei Wang, Ian Dodd, Keith Shearwin, David Dunlap and Laura Finzi, "Single molecule analysis of DNA wrapping and looping by a circular 14-mer of the 186 bacteriophage CI repressor", *Nucleic Acids Research*, **41**, 5746-5756, 2013.

21. Carlo Manzo, Chiara Zurla, David Dunlap and Laura Finzi, "The effect of non-specific binding of lambda repressor on DNA looping dynamics", *Biophys. J*., 103, 1753-1761, 2012.

22. Sachin Goyal, Chandler Fountain, David D. Dunlap, Fereydoon Family, Laura Finzi, "Stretching DNA to quantify non-specific binding", *PRE*, **86**, 011905, 2012.

23. Qing Shao, Sachin Goyal, Laura Finzi and David Dunlap, "Physiological levels of salt and polyamines favor writhe and limit twist in DNA", *Macromolecules*,**45**, 3188−3196, 2012.

24. Dale E.A. Lewis, Phuoc Le, Chiara Zurla, Laura Finzi, and Sankar Adhya, "Multi-level Auto-regulation of CI Protein in a λ lysogen", *PNAS*, **108** (36):14807-14812, 2011.

25. C. Zurla, C. Manzo, D.D. Dunlap, D.E.A. Lewis, S. Adhya, L. Finzi, "Direct demonstration and quantification of long-range DNA looping by the λ bacteriophage repressor.", *NAR*, **37**, 2789-2795, 2009.

26. G. Lia, S. Semsey, D. E. Lewis, S. Adhya, D. Bensimon, D.D. Dunlap, L. Finzi, "The antiparallel loops in Gal DNA", *NAR*, **36**, 4204-4210, 2008.

27. F. Guerra, L. Imperadori, D. Dunlap, R. Mantovani, L. Finzi "DNA compaction by the Nuclear Factor-Y", *Biophys. J*., **93** (1): 176-182, 2007.

28. C. Zurla, T. Samuely, G. Bertoni, F. Valle, G. Dietler, L. Finzi, D. Dunlap "Integration Host Factor alters LacI-induced DNA looping", *Biophysical Chemistry*, **128**, 245-252, 2007.

29. John F. Beausang, Chiara Zurla, Carlo Manzo, David Dunlap, Laura Finzi, Philip C. Nelson "DNA Looping Kinetics Analysed Using Diffusive Hidden Markov Method Model", *Biophys. J.-Biophys. Lett*., **92** (8), L64-L66, 2007.

30. J. F. Beausang, C. Zurla, L. Sullivan, L. Finzi, P. C. Nelson "Elementary simulation of tethered Brownian motion", *Am. J. Phys*. **75**, 520, 2007. Also featured in the *Virtual Journal of Biological Physics Research*, issue of May 15, 2007.

31. P. Nelson, C. Zurla, D. Brogioli, John F. Beausang, L. Finzi, D. Dunlap "Tethered Particle Motion as a Diagnostic of DNA Tether Length", *The Journal of Physical Chemistry B*, **110** (34): 17260-17267, 2006.

32. Zurla, A Franzini, G. Galli, D.D. Dunlap, D.E.A. Lewis, S. Adhya and L. Finzi "Novel tethered particle motion analysis of CI protein-mediated DNA looping in the regulation of bacteriophage lambda" *Journal of Physics:Condensed Matter*, **18**, S225-S234, 2006.

33. Podestà, M. Indrieri, D. Brogioli, J. S. Manning, P. Milani, R. Guerra, L.Finzi, D. Dunlap "Positively charged surfaces increase the flexibility of DNA", *Biophys J*., **89**, 2558-2563, 2005.

34. E. Consoli, R. Croce, D. Dunlap and L. Finzi "Diffusion of phosphorylated and non-phosphorylated Light Harvesting Complex II in the thylakoid membranes", *EMBO reports*, Aug;**6**(8):782-6 (2005).

35. G. Garab, P. Galaida, I. Pomozi, L. Finzi, T. Praznovszky, P. Ormos, H. Van Amerongen "Alignment of

biological microparticles by polarized laser beam", *Eur. Biophys. J.*, **34**(4):335-43 (2005).

36. M. Kooiker, C. Airoldi, A. Losa, P.S. Manzotti, L. Finzi, M. M. Kater and L. Colombo "Basic pentacysteine1 a GA-Binding Protein that Induces Conformational Changes in the Regulatory Region of the Homeotic Arabidopsis Gene SEEDSTICK", *The Plant Cell*, **17**, 722-729 (2005).
37. A. Podestà, L. Imperadori, W. Colnaghi, L. Finzi, P. Milani and D. D. Dunlap "Atomic Force Microscopy studies of DNA deposited on poly-L-ornithine coated mica", ***Journal of Microscopy 215, 236-240(2004)***
38. G. Lia, D. Bensimon, V. Croquette, J-F. Allemand, D. Dunlap, DAE. Lewis, S. Adhya, L. Finzi, "Supercoiling and denaturation in GalR/HU-mediated DNA looping as seen by single-molecule microscopy", *PNAS*, **100**, 11373-377, 2003
39. L. Finzi "Single-molecule supercoiling and denaturation in GalR/HU-mediated DNA looping", *J. Biomol. Struct. and Dyn., **20**, 913-914, 2003.*
40. M Capitanio, G. Romano, R. Ballerini, D. Dunlap, L. Finzi, M. Giuntini and F.S. Pavone, " Calibration of an Optical Tweezer with DIC Signals", *Reviews of Scientific Instruments,***73**, 1687-1696, 2002.
41. L. Finzi, Peter Galajda, and Gyozo Garab, "Labeling phosphorylated LHCII with microspheres for tracking studies and force measurements" *J. Photochem. Photobiol,B:Biology, **65**, 1-4, 2001*.
42. L. Sacconi, G. Romano, R. Ballerini, M. Capitanio, M. De Pas, D. Dunlap, M. Giuntini, L. Finzi, and F.S. Pavone."A 3D micro-TOP magneto-optical trap for micro-objects manipulation", *Optics Letters*, **26**, 1359-61, 2001.
43. L. Finzi, G. Zucchelli, F. M. Garlaschi, and R. C. Jennings, "Thermal Sensitivity of the Red Absorption Tail of Photosystem II Reaction Center Complex", *Biochemistry*, **38** (33), 10627-10631 (1999).
44. L. Finzi, G. Elli, G. Zucchelli, F. M. Garlaschi, R. C. Jennings, "Long Wavelength Absorption Transitions in the D1/D2/cytb559 Complex as Revealed by Selective Pigment Photobleaching and Circular Dichroism Measurenments", *BBA*, **1366**, 256-264 (1998).
45. R. C. Jennings, G. Zucchelli, R. Croce, L. Valkunas, L. Finzi, and F. M. Garlaschi, "Model Studies on the Excited State Equilibrium Perturbation due to Reaction Center Trapping in Photosystem I", *Photosynthesis Research*, **52**, 245 (1997).
46. R. C. Jennings, F. M. Garlaschi, L. Finzi and G. Zucchelli, "Slow Exciton Trapping in Photosystem II. A Possible Physiological Role", *Photosynthesis Research* **47**, 167-173 (1996)
47. J. Gelles, H. Yin, L. Finzi, O. K. Wang, R. Landick, "Single molecule kinetic studies on DNA transcription and transcriptional regulation", *Biophysical Journal* **68**(4 supplement S):S73, 1995 April
48. R. Cattaneo, G. Zucchelli, F. M. Garlaschi, L. Finzi, and R. C. Jenninngs, "A Thermal Broadening Analysis of Absorption Spectra of the D1/d2/cytochrome b-559 Complex in Terms of Gaussian Decomposition Sub-bands", *Biochemistry* **34**, 15267(1995)
49. L. Finzi and J. Gelles, "Measurement of Lac Repressor-mediated loop formation and Breakdown in Single DNA Molecules", *Science* **267**, 378-380(1995).
50. R. C. Jennings, F. M. Garlaschi, L. Finzi, and G. Zucchelli, "Spectral heterogeneity and energy transfer in higher plant Photosystem II", *Lietuvos Fizikos Zurnalas*, **34**(4), 293(1994).
51. S. Smith, L. Finzi and C. Bustamante, "Direct Mechanical Measurements of the Elasticity of single DNA molecules Using Magnetic Beads", Science 258, 1122(1992). Cited more than 2,400 times.
52. L. Finzi, P. Sebring, S. Smith, and C. Bustamante, "Optical Methods for Ultrasensitive Detection and Analysis: Techniques and Applications", *S.P.I.E*, **1435**, 178-187(1992).
53. L. Finzi, L. Ulibarri and C. Bustamante, "Differential Polarization Imaging V. Separation of Preferential Scattering and Absorption Contributions to the CD Image", *Biophysical Journal*, **59**, 1183(1991).
54. L. Finzi, C. Bustamante and G. Garab, "Direct Observation of Large Chiral Domains in Chloroplast Thylakoid Membranes by Differential Polarization Microscopy", *Proceedings of the National Academy of Sciences (USA)*, **86**, 8748 (1989).
55. L. Finzi, G. Maccagnani, S. Masiero, B. Samori' and P. Zani, "Searching for Asymmatric Inductions in Chiral Smectic Mesophases", *Liquid Crystals*, **6**, 199-210 (1989).
56. C. Juang, L. Finzi and C. Bustamante, "Design and Application of a Computer Controlled Confocal Scanning

Differential Polarization Microscope", *Reviews of Scientific Instruments*, **59**(11), 2399 (1988)**.**

57. G. Garab, L. Finzi and C. Bustamante, "Helically Organized Macroaggregates of Pigment-Protein Complexes in Chloroplasts: Evidence from Circular Intensity Differential Scattering", *Biochemistry*, **27**, 5839 (1988).

PEER REVIEWED, INVITED CONTRIBUTIONS TO SPECIAL ISSUES or VOLUMES

58. Laura Finzi & David Dunlap, "The tethered particle motion and magnetic tweezer techniques: an introduction and some applications", Proceedings of the International School of Physics "Enrico Fermi", Multimodal and Nanoscale Optical Microscopy, 2022, Accepted.
59. Jin Qian, David Dunlap and Laura Finzi "Basic mechanisms and kinetics of pause-interspersed transcript elongation", *Nucleic Acids Res*. 2021 Jan 11;**49**(1):15-24. PubMed Central PMCID: PMC7797061.
60. Wenxuan Xu, Laura Finzi and David Dunlap "Energetics of twisted DNA topologies", *Biophysical Journal*, Vol. **120**, Issue 16, 17 August 2021, Pages 3242-3252. DOI: 10.1016/j.bpj.2021.05.002.
61. Jin Qian, Wenxuan Xu, David Dunlap and Laura Finzi "Single-molecule insights into torsion and roadblocks in bacterial transcript elongation", *Transcription*, 2021, **12**(4):219-231. Special focus on prokaryotic transcription, http://dx.doi.org/10.1080/21541264.2021.1997315.
62. Suleyman Ucuncuoglu, David A. Schneider, Eric Weeks, David Dunlap, and Laura Finzi, "Multiplexed, tethered particle microscopy for studies of DNA-enzyme dynamics", *Methods in Enzymology*, vol. "Single-molecule Enzymology", https://doi.org/10.1016/bs.mie.2016.08.008.
63. Laura Finzi and David Dunlap, "Supercoiling biases the formation of loops involved in gene regulation", *Biophysical Reviews*, "DNA supercoiling, protein interactions and genetic function", 2016 Vol. 8 Issue 1 Pages 65-74; DOI: 10.1007/s12551-016-0211-0.
64. Laura Finzi and Wilma Olson, "The Emerging role of DNA supercoiling as a dynamic player in genomic structure and function", Editorial, *Biophysical Reviews*, "DNA supercoiling, protein interactions and genetic function" Vol. 8 Issue 1 Pages 1-3; DOI: 10.1007/s12551-016-0214-x
65. Paul Liebesny, Sachin Goyal, David Dunlap, Fereydoon Family and Laura Finzi, "Determination of the Number of Proteins Bound non-Specifically to DNA", *Journal of Physics: Condensed Matter*, **22** 414104, 2010.
66. L. Finzi and D. Dunlap "Single-molecule approaches to structure, kinetics and thermodynamics of transcriptional regulatory nucleoprotein complexes", minireview, *JBC*, **285**, 18973-18978, 2010.
67. C. Manzo and L. Finzi, "Quantitative analysis of DNA looping kinetics from tethered particle motion experiments" *Methods in Enzymology*, volume 475 "Molecule Tools, Part B: Super-Resolution, Particle Tracking, Multiparameter, and Force Based Methods", Ed. Nils G. Walter, 2010, 199-220.
68. H. Wang, L. Finzi, D. Lewis and D. D. Dunlap, "AFM studies of the CI oligomers that secure DNA loops", *Curr. Pharmaceutical Biotechnology*, **10**, 494-501, 2009.
69. G. Lia, M. Indrieri, T. Owen-Hughes, L. Finzi, A. Podesta', P. Milani, and D. Dunlap, "ATP-dependent looping of DNA by ISWI", Special issue: "From single molecules and single cells to tissue imaging", *J. Biophotonics*, **4**, 280-286 (2008).
70. L. Finzi and D. Dunlap "Single molecule studies of DNA architectural changes induced by regulatory proteins" in *Methods in Enzymology*, invited article, 2003, Eds. Adhya & Garges, vol 370, pp 369-378.
71. L. Finzi, and D. Dunlap in "Looking at the genome in action", "DNA topological modifications in transcriptional regulation: a study at the single molecule level", *Istituto Lombardo di Scienze e Lettere, classe scienze*, **30**, 9-17, 2003.
72. L. Finzi, D. D. Dunlap, "Light Polarization Microscopy" in *Encyclopedia of Life Sciences*, Macmillan Reference limited Grove's Dictionaries, Inc, Nature Publishing Group, London, 2001. www.els.net. Invited paper.
73. L. Finzi, G. Elli, F. M. Garlaschi, G. Zucchelli, and R. C. Jennings, "A Thermal Broadening Analysis of the Red Absorption Tail of the D1/D2/cytb559 Complex" (1998) in Photosynthesis: Mechanisms and Effects (Ed.:Garab,G.) p.1077, Kluwer Academic Publishers, Dordrecht.
74. G. Elli, L. Finzi, F. M. Garlaschi, G. Zucchelli, and R. C. Jennings, "A Thermal Analysis of the D1/D2/cytb559 Complex Circular Dichroism Spectra" (1998) in Photosynthesis: Mechanisms and Effects (Ed.:Garab,G.) p.1081, Kluwer Academic Publishers, Dordrecht.

75. R. C. Jennings, G. Zucchelli, L. Finzi, and F. M. Garlaschi, "Spectral Heterogeneity and Energy Equilibration in Higher Plant Photosystems" in "Light as an Energy Source and Information Carrier in Plant Physiology" eds. R. C. Jennings, G. Zucchelli, F. Ghetti, G. Colombetti, NATO ASI series, series A: life sciences, vol. 287, Plenum Press, 1996.

76. G. Zucchelli, F. M. Garlaschi, L. Finzi, and R. C. Jennings, "A Thermal Broadening Analysis of the Light Harvesting Chlorophyll a/b Protein Complex II Absorption Spectrum in Terms of Sub-bands. In *Photosynthesis*: from Light to Biosphere. Vol.I, Ed. Mathis P., Kluwer Academic Publishers, Dordrecht/Boston/London, 179-182, 1995.

77. R. Cattaneo, L. Finzi, G. Zucchelli, F. M. Garlaschi, and R. C. Jenninngs, " Thermal Broadening of Gaussian Sub-bands of the Reaction Center Complex in Photosystem II". In *Photosynthesis*: from Light to Biosphere. Vol.I, Ed. Mathis P., Kluwer Academic Publishers, Dordrecht/Boston/London, 187-190, 1995.

78. C. J. Bustamante, L. Finzi, P.E. Sebring and S. B. Smith, "Manipulation of single DNA molecules and measurements of their elastic properties under an optical microscope", *Proceedings of SPIE*, **1435**, 179-187, 1991.

79. L. Finzi and C. Bustamante, "Direct observation of chloroplast thylakoid macro-organization by new spectroscopic methods", in *Trends in Photochemistry and Photobiology*, ed. Council of Scientific Research Integration, Research Trends Publisher, Sreekanteswaram, Trivandrum 695 023, India. 1991. Invited paper.

80. G. Garab, L. Finzi and C. Bustamante, "Differential Polarization Imaging of Chloroplasts. Microscopic and Macroscopic Linear and Circular Dichroism", in *Light in Biology and Medicine*, vol. II, R. H. Douglas, J. Moan, G. Rontò, Eds., Plenum Press, N.Y., 77-88, 1989.

81. L. Finzi, G. Maccagnani, S. Masiero, B. Samori' and P. Zani, "Searching for Asymmatric Inductions in Chiral Smectic Mesophases", *Liquid Crystals*, **6**, 199-210 (1989).

82. L. Finzi, D. Beach, C. Bustamante, G. Garab, "Differential Polarization Microscopy: Theory & Applications." in *Proceedings of the Electron Microscopy Society of America*, (G.W. Bailey, ed.), pp. 60-61 (1988).

BOOK CHAPTERS

83. Wenxuan Xu, David Dunlap and Laura Finzi, "Tethered Particle Microscopy", *Encyclopedia of Biophysics*, European Biophysical Societies' Association (EBSA), 2021 G. C. K. Roberts, A. Watts (eds.), Encyclopedia of Biophysics, https://doi.org/10.1007/978-3-642-35943-9_489-1

84. Daniel T. Kovari, Yan Yan, Laura Finzi and David Dunlap, "Tethered Particle Motion: an easy technique for probing DNA topology and interactions with transcription factors", in "*Methods in Molecular biology: Single-Molecule Analysis: Methods and Protocols*", ed. E.J.G. Peterman, series editor John Walker, vol 1665, Humana Press, New York, NY, p 317-340 (2018). DOI: 10.1007/978-1-4939-7271-5_17.

85. Laura Finzi and David Dunlap, "Tethered Particle Microscopy (TPM)" in *Encyclopedia of Biophysics*, Springer (Berlin Heidelberg), 2579-2582 (2013).

86. David D. Dunlap, Chiara Zurla, Carlo Manzo and L. Finzi, "Probing DNA topology with Tethered particle Motion" in "*Methods in Molecular biology: Single-Molecule Analysis: Methods and Protocols*", eds. E.J.G. Peterman and G Wuite, series editor John Walker, Humana Press. Chapter 16, pp. 295-313, 2011.

87. L. Finzi Carlo Manzo, Chiara Zurla, Haowei Wang, Dale Lewis, Sankar Adhya and D. Dunlap, "The lambda bacteriophage epigenetic switch: new insight from single-molecule microscopy", in *Biophysics of DNA-protein interactions: From single molecules to biological systems*. Eds. M. Williams and L. J Maher, Springer pp. 193-212, 2011. DOI 10.1007/978-0-387-92808-1.

88. D. E. A. Lewis[1], S. J. Lee[1], S. Semsey[2], K. Virnik[3], L. Finzi, and S. Adhya, "Role of HU in regulation of *gal* promoters" in *Bacterial Chromatin*, Eds: C. Dorman and R. T. Dame, Springer, DOI 10.1007/978-90-481-3473-1_17, 2010.

89. L. Finzi, "Perspectives on DNA looping", in "*Mathematics of DNA Structure, Function, and Interactions*", Eds; C. J. Benham, S. Harvey, W. K. Olson, D. L. Sumners, and D. Swigon, Springer, The IMA volumes in Mathematics and its Applications, **150**, 53-71, 2009.

PUBLICATIONS IN PREPARATION

90. Zixing Zheng, Laura Finzi and David Dunlap, "Nanomechanics of Inosine-substituted DNA"

91. Dylan Collette, David Dulap and Laura Finzi, “Macromolecular Crowding effects on DNA toppology”, Review.
92. Jin Qian, Wenxuan Xu, Yan Yan, Allison Rolle, David Dunlap and Laura Finzi, “RNAP Secondary Transcription Regulated by Tension and Roadblock.”

PRESENTATIONS TO MEETINGS (contributed short talks or posters)

L. Finzi, G. Garab, and C. Bustamante, N.A.T.O. school on "Polarized Spectroscopy of Ordered Systems", Rimini, Italy 1987.

L. Finzi, D. Beach, C. Bustamante, G. Garab, joint meeting of the *Electron Microscopy Society of America, Microbeam Analysis Society* and *Microscopial Society of Canada*, Milwaukee, Wisconsin 1988. Oral presentation

L. Finzi, C. Bustamante, and G. Garab, *Biophysical Society* , 33rd annual meeting, p.185, Cicinnati, Ohio 1989.

L. Finzi, C. Bustamante, and G. Garab, *European Society for Photobioogy*, 3rd meeting, Budapest, Hungary, 1989. Oral presentation

L. Finzi, S. B. Smith, P. Sebring and C. Bustamante, *Meeting of the Italian Division of Physical Chemistry*, Maratea, Italy, 1990. Oral presentation

C. Bustamante, Y. Jiang, S. B. Smith, L. Finzi and S. Gurrieri, *DOE Human Genome Workshop*, Santa Fe', NM, 1991. Oral presentation

S. B. Smith, P. Sebring, L. Finzi and C. Bustamante, *Biophysical Society*, 35th annual meeting, San Francisco, CA, 1991.

S. B. Smith, L. Finzi, and C. Bustamante, *Gordon Conference* on Nucleic Acids, New Hampton, New Hampshire, 1991. Oral presentation

L. Finzi and J. Gelles, *Markey Meeting*, Colorado, USA, 1993. Oral presentation

L. Finzi and J. Gelles, *Meeting of the Center for Complex Systems*, Brandeis University, Waltham, Massachusetts, USA, 1993. Oral presentation

L. Finzi and J. Gelles, p. A240, *Biophysical Society* 38th Annual Meeting, New Orleans, Louisiana, USA 1994. Oral presentation

L. Finzi, R. C. Jennings, F. M. Garlaschi, and G. Zucchelli, *Biophysics of Photosynthesis*, York, UK, 1994.

L. Finzi, R. C. Jennings, F. M. Garlaschi, and G. Zucchelli, *NATO School* on "Light as an Energy Source and Information Carrier in Plant Photophysiology", Volterra (Pisa) Italy, 26 Sep. - 6 Ott., 1994.

F. Bacci, R. Cattaneo, L. Finzi, G. Zucchelli, R. C. Jennings and F. M. Garlaschi, 10th *European Societies of Photosynthesis and Plant PhysiologyCongress*, Firenze, Italy, 9-13 Settembre 1996.

G. Zucchelli, L. Finzi, F.M. Garlaschi, R.C. Jennings, *10th FESPP Congress*, Firenze, 9-13 settembre 1996.

L. Finzi, F.M. Garlaschi, G. Zucchelli, R.C. Jennings, *7th Congress of the European Society for Photobiology*, Stresa, Italy, 8-13 September 1997.

G. Zucchelli, F.M. Garlaschi, L. Finzi, R.C. Jennings, *7th Congress of the European Society for Photobiology, Stresa, Italy,* 8-13 September 1997.

G. Zucchelli, A. Borisov, F.M. Garlaschi, L. Finzi, R.C. Jennings, 7th Congress of the European Society for Photobiology, Stresa, Italy, 8-13 September 1997.

R. C. Jennings, G. Zucchelli, R. Croce, L. Valkunas, L. Finzi and F. M. Garlaschi, XXXVI Congress of the Italian Society of Plant Physiology, Bari, 24-26 September 1997.

L. Finzi, G. Elli, F. M. Garlaschi, G. Zucchelli, and R. C. Jennings, *XIth International Congress of Photosynthesis*, Budapest, Hungary, 17-22 August, 1998.

G. Elli, L. Finzi, F. M. Garlaschi, G. Zucchelli, R. C. Jennings, *XIth International Congress of Photosynthesis*, Budapest, Hungary, 17-22 August, 1998.

L. Finzi and J. Gelles,. *EMBO workshop on Single Molecule Biophisics*, Tours, France, 8-15 July 1999.

L. Finzi, G. Zucchelli, F. M. Garlaschi e R. C. Jennings, "Temperature dependence of the red tail of the absorption spectrum of the D1/D2/cytb559 complex", XXXVIII Congress of the Italian Society of Plant Physiology, Torino, September 24-27, 1999.

G. Romano, G. Cai, M. Capitanio, D. Dunlap, L. Finzi, S. Romagnoli, F.S. Pavone "Single molecule byophisics: the

mechano-chemistry of a motor protein of the pollen tube", INFM (Istituto Nazionale di Fisica della Materia) Meeting, Genova, June 18-16, 2000.

L. Finzi, G. Garab, "Characterization of the migration of the Light Harvesting Complex II (LHCII) from PSII to PSI by single particle tracking", XXXIX Annual Meeting of the Italian Society of Plant Physiology, Bologna September 18-20, 2000.

L. Finzi, "Labelling of LHCII with beads for single particle tracking and force measurements", II Italian workshop on photosynthesis, Bari, June 7-8, 2001. Oral presentation

INFM (Istituto Nazionale di Fisica della Materia) Meeting, Roma, Giugno 16-18, 2001.

D. Dunlap, P. Scaffidi and L. Finzi, "Static and dynamic studies of SOX 2-induced DNA bending", Single Particle Methodologies in Biophysics and Biotechnology, LENS, Firenze, 21-22 Settembre, 2001. Oral presentation

L. Finzi "Single-molecule Biological Studies", From the Object to the Image, workshop on microscopy signals, images and associated techniques, , CNR, Pisa 27-28 Giugno, 2001. Oral presentation

D. Dunlap, P. Scaffidi, M. Bianchi, W. Colnaghi, A. Podestà, P. Milani e L. Finzi, "Static and Dynamic Studies of Sox-2-induced DNA bending", DNA in Chromatin: at the frontiers of Biology, Biophysics and Genomics", Arcachon, France, 23-29 Marzo, 2002.

L. Finzi, G. Lia, JF. Allemand, V. Croquette, D. Dunlap, D. Bensimon, S. Adhya, "The nucleoprotein complex that regulates transcription of the gal operon", DNA in Chromatin: at the frontiers of Biology, Biophysics and Genomics", Arcachon, France, 23-29 Marzo, 2002. Oral presentation

L. Finzi, "Single-molecule Biological Studies", Departments of Biochemistry and Physiology, Università degli Studi di Milano, 18 Aprile, 2002. Oral presentation

G. Romano, M. Capitanio, D.D. Dunlap, L. Finzi, L. Sacconi and F.S. Pavone " The Influence on the LacI-DNA Complex Formation in Single DNA Molecule of External Forces Operated with Magneto-Optical tweezers" 2002, "DNA and chromosomes: physical and biological approaches", Cargese, Francia, August 12-24.

C. Zurla, F. Ravasio, D.D. Dunlap, R. Mantovani and L. Finzi "DNA/NFY Interaction at the single-molecule level" 2002, "DNA and chromosomes: physical and biological approaches", Cargese, Francia, August 12-24.

G. Lia, D. Bensimon, V. Croquette, J-F Allemand, D.D. Dunlap, D.A.E. Lewis, S. Adhya and L. Finzi "Single stranded DNA, Supercoiling, HU protein and GalR conspire to inhibit the Gal operon", "DNA and chromosomes: physical and biological approaches", Cargese, Francia, August 12-24 2002.

C. Zurla, D Dunlap, G. Bertoni, O. Gileadi, J. Stavans and L. Finzi "IHF/DNA interaction at the single molecule level" Premier Séminaire transalpine de Physique, Les Diableret, Switzerland, 3-8/3/2003. Oral presentation

G. Lia, D. Bensimon, V. Croquette, J-F. Allemand, D. Dunlap, DAE. Lewis, S. Adhya, L. Finzi, "Supercoiling and denaturation in GalR/HU-mediated DNA looping as seen by single-molecule microscopy", FASEB summer research conferences "Mechanism and regulation of prokaryotic transcription", Saxtons River, VT, USA, June 21-26, 2003.

D. Dunlap, W. Colnaghi, L. Finzi, A. Podestà and P. Milani "Study of SOX 2-induced DNA bending" First International Meeting on Applied Physics (APHYS-2003), Badajoz (Spain), October 14-18th 2003.

Chiara Zurla, David Dunlap, Giovanni Bertoni, Opher Gileadi, Giovanni Dietler, Francesco Valle and L. Finzi "IHF-DNA interaction at the single molecule level", "Elucidating Biomolecular Networks by single molecule technologies" meeting in Ascona, Switzerland, 26-31 October 2003.

Chiara Zurla, David Dunlap, Giovanni Bertoni, Opher Gileadi, Giovanni Dietler, Francesco Valle and L. Finzi "IHF-DNA interaction at the single molecule level", "DNA and chromosomes: physical and biological approaches", Cargese, Francia, August 2-14 2004.

Doriano Brogioli, Chiara Zurla, Laura Finzi and David Dunlap "Theoretical Analysis of the TPM method", "DNA and chromosomes: physical and biological approaches", Cargese, Francia, August 2-14 2004.

C. A. Airoldi, M. Kooiker, R. Favaro, P. S. Manzotti, L. Finzi, L. Colombo, M.M. Kater "Molecular control of ovule development in Arabidopsis" FISV (Italian Federation of Life Sciences) Meeting, Riva del Garda, Italy, 30/9-3/10 2004.

A. Podesta, M. Indrieri, D. Brogioli, G.S. Manning, P. Milani, R. Guerra, L. Finzi, D. Dunlap, "USING POLYAMINES TO MODIFY THE FLEXIBILITY OF DNA ON SURFACES", presented at the meeting "Understanding the Self-Organization of Charged Polymers", 344. WE-Heraeus-Seminar, Physikzentrum Bad Honnef, 4.-6. April 2005.

Rosalinda Fiorella Guerra, David Dunlap, Roberto Mantovani, Laura Finzi, "Conformational changes of DNA induced by the eukaryotic transcriptional factor NFY using single molecule microscopy", presented at the workshop on

Biopolymers: Thermodynamics, Kinetics and Mechanics of DNA, RNA and Proteins", The Abdus Salam International Center for Theoretical Physics, Trieste, Italy, May 30-June 3, 2005.

Chiara Zurla, Alberto Franzini, Doriano Brogioli, Dale A.E. Lewis, David D. Dunlap, Sankar Adhya e Laura Finzi, "Modificazioni topologiche del DNA nell'autoregolazione negativa del repressore λ", presented at the workshop on Biopolymers: Thermodynamics, Kinetics and Mechanics of DNA, RNA and Proteins", The Abdus Salam International Center for Theoretical Physics, Trieste, Italy, May 30-June 3, 2005. Oral presentation

Laura Finzi, Chiara Zurla and David Dunlap, "Genetic Switches and Single Molecule Microscopy", Georgia Life Sciences Summit, Atlanta, GA, October 27, 2005.

Phil Nelson, Chiara Zurla, Doriano Brogioli, Laura Finzi, David Dunlap, "Quantitative analysis of tethered particle motion" 50th Biophysical Society Meeting, Salt Lake City, Utah, February 18-22, 2006.

Philip Nelson, Chiara Zurla, Darren Segall, Doriano Brogioli, Rob Phillips, David Dunlap, Laura Finzi, Quantitative analysis of tethered particle motion, APS Meeting, Baltimore, MD 13-17 March, 2006. Oral presentation

Philip Nelson, Chiara Zurla, David Dunlap and Laura Finzi "Quantitative analysis of tethered particle motion", Emerson Center Lecturship Award Symposium, "Computational and Mathematical Modelling in Large Systems: From Proteins to Cells", Cherry L. Emerson Center for Scientific Computation, Emory University, April, 3rd 2006.

Giuseppe Lia, Szabolcs Semsey, Dale Lewis, Laura Finzi, Sankar Adhya "GalR/HU-mediated DNA looping a problem of geometry", workshop on "Phages, Experiments and Modeling" organized by the Center for Models of Life, Niels Bohr Institute, Dragon, Denmark, May 4-6, 2006.

Chiara Zurla, Alberto Franzini, Giorgio Galli, Sankar Adhya, Dale Lewis, David D. Dunlap and Laura Finzi "DNA topological changes in the λ CI negative autoregulation" Gordon conference on "Single-molecule Approaches to Biology", Colby-Sawyer College, New London, NH, 18-23 June, 2006

Podesta' Alessandro*, Indrieri Marco, BrogiolliI Doriano, Manning Gerald, Dunlap David, Finzi Laura, Milani Paolo "Controlling the flexibility of DNA on surfaces using polyamines" ECOSS24, Paris, September 2006.

David Dunlap, Alessandro Podestà, Marco Indrieri, Rosalinda Guerra, Doriano Brogioli, Paolo Milani, Gerald S. Manning, Haowei Wang and Laura Finzi, "Single Molecule Biophysics (SMB)" workshop, Aspen, Feb 4-10, 2007. Oral presentation

Beausang JF, Zurla C, Dunlap D,Finzi L. and Nelson P. Hidden markov analysis of tethered particle motion Biophysical Meeting, 2007 (Biophys. J: 417A-417A Suppl. S JAN 2007)

Chiara Zurla, Carlo Manzo, David Dunlap § Sankar Adhya, Dale Lewis and Laura Finzi, "How stable is lambda CI repressor-induced DNA loop? A single molecule study". workshop on the "Mechanics of Life: from Biomolecules to Molecular Machines". June 11-13, 2007, University of Michigan, Ann Arbor.

Carlo Manzo, Sankar Adhya, David Dunlap and Laura Finzi, Effect of force and supercoiling on the dynamics of CI-mediated DNA loop, workshop on the "Mechanics of Life: from Biomolecules to Molecular Machines". June 11-13, 2007, University of Michigan, Ann Arbor

Chiara Zurla, Rachel Shubert, Ian B.Dodd, Keith Shearwin and Laura Finzi, Coliphage 186 genetic switch: a single molecule study. Biophysical Society Meeting, Long Beach, CA, Feb 1-6, 2008.

Chiara Zurla, Carlo Manzo, David Dunlap, Sankar Adhya, Dale Lewis, Laura Finzi, "How stable is the lambda CI repressor-induced DNA loop? A single molecule study". Biophysical Society Meeting, Long Beach, CA, Feb 1-6, 2008.

Carlo Manzo, Chiara Zurla, Sankar Adhya, David Dunlap and Laura Finzi, "Effect of force and supercoiling on the dynamics of CI-mediated DNA looping", Biophysical Society Meeting, Long Beach, CA, Feb 1-6, 2008.

Chiara Zurla, Trent Brunson, Rachel Shubert, Ian B.Dodd, Keith Shearwin and Laura Finzi, "Equilibrium between protein-mediated DNA wrapping and looping. Implications for a protein repositioning mechanism", Gordon Conference "Single Molecule Approaches to Biology' Colby-Sawyer College, New London, NH, 17-22 August, 2008.

Chiara Zurla, Carlo Manzo, Haowei Wang, Sankar Adhya, David Dunlap, and Laura Finzi, "Elucidation of the mechanism of the lambda bacteriophage epigenetic switch", "Single-Molecule Biophysics" Winter Conference, Center for Physics, Aspen, CO, Jan. 4-10, 2009.

Chiara Zurla, Carlo Manzo, Haowei Wang, Sankar Adhya, David Dunlap, and Laura Finzi, "Elucidation of the mechanism of an epigenetic switch by single-molecule assays", 53rd Biophysical Society meeting, Boston, 2009.

Haowei Wang, Ian B.Dodd, Keith Shearwin, David Dunlap and Laura Finzi, "Coliphage 186 genetic switch: a single molecule study", SEAPS Meeting, Atlanta, Nov. 11-14, 2009. Oral presentation

Qing Shao, Laura Finzi, and David Dunlap, "Dynamic investigation of DNA bending and wrapping by type II topoisomerases", SEAPS Meeting, Atlanta, Nov. 11-14, 2009. Oral presentation

Laura Finzi, Carlo Manzo, Chiara Zurla, David D. Dunlap, "Complex kinetics of the λ repressor-mediated DNA loop", Biophysical Society Meeting, San Francisco, CA, Feb 20-24, 2010.

Qing Shao, Laura Finzi, and David Dunlap, "Dynamic investigation of DNA bending and wrapping by type II topoisomerases", Biophysical Society Meeting, San Francisco, CA, Feb 20-24, 2010.

Haowei Wang, Ian B.Dodd, Keith Shearwin, David Dunlap and Laura Finzi, "Coliphage 186 genetic switch: a single molecule study". Biophysical Society Meeting, San Francisco, CA, Feb 20-24, 2010.

Laura Finzi, American Physics Society March Meeting, A10: Focus Session: Single Molecule Biophysics and Chemical Physics Contributed talk. Portland, Oregon, March 15–19, 2010 (Did not go due to teaching conflict);

Paul Liebesny, Sachin Goyal, David Dunlap, Fereydoon Family and Laura Finzi, "Determination of the number of proteins bound non-specifically to DNA", The 4th Annual Q-Bio Conference on Cellular Information Processing, St. John's College, Santa Fe, New Mexico, USA, August 11-14, 2010. http://cnls.lanl.gov/q-bio/wiki/index.php/The_Fourth_q-bio_Conference_on_Cellular_Information_Processing .

Laura Finzi, "Post-Initiation Activities of RNA Polymerases" Meeting, Mountain Lake Lodge, Pembroke, VA, 10/4-7/10.

Laura Finzi, Carlo Manzo, Chiara Zurla, David D. Dunlap, "Kinetic studies of lambda repressor-mediated DNA looping suggest physiological role for nonspecific binding", Biophysical Society Meeting, Baltimore, 3/5-8, 2011.

Qing Shao, Laura Finzi, and David Dunlap, "Dynamics of DNA supercoil relaxation by type II topoisomerases", Biophysical Society Meeting, Baltimore, 3/5-8, 2011. Selected oral presentation

Haowei Wang, Ian B.Dodd, Keith Shearwin, David Dunlap and Laura Finzi, The 186 bacteriophage repressor as a model system to study nucleosome repositioning by single-molecule microscopy, Biophysical Society Meeting, Baltimore, 3/5-8, 2011.

Sachin Goyal, Chandler Fountain, David Dunlap, Fereydoon Family, and Laura Finzi, Stretching DNA to quantify nonspecific binding by lambda repressor, Biophysical Society Meeting, Baltimore, 3/5-8, 2011.

Qing Shao, Sachin Goyal, Laura Finzi and David Dunlap, "Probing DNA stiffness with magnetic tweezers", Biophysical Society Meeting, Baltimore, 3/5-8, 2011.

Dale E. A. Lewis, Phuoc Le, Chiara Zurla, Laura Finzi, and Sankar Adhya, "Multi-level Auto-regulation of CI Protein in a λ lysogen", 111th ASM at New Orleans, May 21 –24, 2011. (Oral presentation by Dale Lewis).

L. Finzi, C. Zurla, C. Manzo, David Dunlap, Dynamic DNA Packaging Across Kindoms: Chromatin and Beyond, Asylomar, CA July 5-8, 2011, abstract selected for oral presentation. Could not attend.

Yue Ding, Carlo Manzo, David Dunlap, and Laura Finzi, The Effects of Tension and Supercoiling on Protein-mediated DNA Looping, Biophysical Society Meeting, San Diego, CA, 2/25-29, 2012

Haowei Wang, David Dunlap, Keith Shearwin, Ian Dodd and Laura Finzi, Automated DNA tracing on AFM images helps the study of 186 repressor-DNA interactions, Biophysical Society Meeting, San Diego, CA, 2/25-29, 2012. Selected oral presentation.

Qing Shao, Laura Finzi, and David Dunlap, Effect of H bonds on the transition from right-handed to left handed ds DNA, Biophysical Society Meeting, San Diego, CA, 2/25-29, 2012.

Sandip Kumar, Chiara Zurla, Sachin Goyal, Laura Finzi, David Dunlap, Effects of Viscosity on Tethered Particle Motion (TPM) Experiments, Biophysical Society Meeting, San Diego, CA, 2/25-29, 2012.

Haowei Wang, Laura Finzi, David Dunlap, I. Murchland, Ian Dodd and Keith Shearwin, DNA wrapping and looping by a circular 14mer of the 186 bacteriophage repressor, BIOCOM, Adelaide, AU, September 2012.

Laura Finzi, "Single Molecule Biophysics (SMB)" Winter Conference, Center for Physics, Aspen, Jan 5 - 11, 2013.

Qing Shao, Monica Fernandez, Sharon Owino, Yoojin Lee, Laura Finzi, and David Dunlap, Biophysical Society Meeting, San Francisco, Feb 15-18, 2014.

Suparna Sarkar, Sachin Goyal, Ning Gao, David Dunlap, Laura Finzi, Krishnananda Chattopadhyay, "CI dimers bound specifically to high affinity operators nucleate adjacent non-specific binding", Biophysical Society Meeting, San Francisco, Feb 15-18, 2014.

Suleyman Ucuncuoglu, David Alan Schneider, David Dunlap, Laura Finzi, "Single Molecule Investigation of RNA

Polymerase I using Multiplexed Tethered Particle Motion", Biophysical Society Meeting, San Francisco, Feb 15-18, 2014.

Yue Ding, Carlo Manzo, Fenfei Leng, David Dunlap, and Laura Finzi, "DNA supercoiling: a regulatory signal for the λ repressor" Gordon Conference on Single-molecule approaches to Biology, Lucca, Italy, June 13-18, 2014.

Suleyman Ucuncuoglu, David A. Schneider, David Dunlap, and Laura Finzi, "A single molecule perspective of elongation by RNA polymerase I", 59th Biophysical Society Meeting, Baltimore, Feb 7-11, 2015.

Yan Yan, Sandip Kumar, Fenfei Leng, Laura Finzi and David Dunlap, "HU protein enhances lac repressor-mediated looping", 59th Biophysical Society Meeting, Baltimore, Feb 7-11, 2015.

Yan Yan, Fenfei Leng, David Dunlap and Laura Finzi, Either HU protein or DNA supercoiling dramatically enhance Lac-repressor-mediated DNA looping in vitro, 60th Biophysical Society Meeting, Los Angeles, Feb 27-March 2, 2016.

Daniel Kovari, Matteo Cristofalo, David Dunlap and Laura Finzi, The overstretching transition of diaminopurine-substituted, triply-bonded, DNA, 60th Biophysical Society Meeting, Los Angeles, Feb 27-March 2, 2016. Selected oral presentation

Dan Kovari, Eric Weeks, David Dunlap, Laura Finzi, "Tuning up tethered particle motion", 61st Biophysical Society Meeting, New Orleans, Feb 11-15, 2017.

Zsuzsanna Voros, David Dunlap and Laura Finzi, "Transcription past loop-forming repressor proteins" 61st Biophysical Society Meeting, New Orleans, Feb 11-15, 2017.

Yan Yan, David D. Dunlap, Fenfei Leng, Laura Finzi, "Protein-mediated loops in supercoiled DNA create large topological domains" 61st Biophysical Society Meeting, New Orleans, Feb 11-15, 2017.

Daniel T. Kovari, Matteo Cristofalo, R. Conti, Domenico Salerno, Valeria Cassina, Yoojin Lee, Laura Finzi, Francesco Mantegazza, David Dunlap, "Experimentally Motivated Sequence-dependent Models of Melting and Overstretching for Diamino Purine-Substituted DNA." 62nd Biophysical Society Meeting, San Francisco, Feb 17-21, 2018.

Yan Yan, Wenxuan Xu, David Dunlap, Laura Finzi, "RNA polymerase pauses at *lac* repressor obstacles" 62nd Biophysical Society Meeting, San Francisco, Feb 17-21, 2018. Selected oral presentation.

Zsuzsanna Vörös, Cristin R. Hendrickson, David Dunlap, Laura Finzi, "Roadblocks by protein-mediated DNA loops" 62nd Biophysical Society Meeting, San Francisco, Feb 17-21, 2018.

Yan Yan, Laura Finzi, David Dunlap, "Supercoiling makes protein-mediated looping of DNA tethers deterministic", 63rd Biophysical Society Meeting, Baltimore, Mar 2-6, 2019. Selected oral presentation.

D. Kovari, D. Dunlap, L. Finzi, "Dynamic force-spectroscopy on a budget: new designs and open-source software for building an electromagnetic tweezer" 63rd Biophysical Society Meeting, Baltimore, Mar 2-6, 2019.

Wenxuan Xu, Yan Yan, David Dunlap, Laura Finzi, "Loops enhance transcriptional roadblocks" 63rd Biophysical Society Meeting, Baltimore, Mar 2-6, 2019. Selected oral presentation.

Yan Yan, Wenxuan Xu, Jin Qian, Allison Rolle, Irina Artsimovitch, David Dunlap, Laura Finzi, "Transcriptional obstacles modify transcriptional elongation" 64th Biophysical Society Meeting, San Diego, Feb 15-19, 2020.

Jin Qian, Wenxuan Xu, Yan Yan, Nicholas Sunday, Irina Artsimovitch, David Dunlap, Laura Finzi, "Force and GreA modulate transcription elongation through obstacles" 64th Biophysical Society Meeting, San Diego, Feb 15-19, 2020.

Jin Qian, Wenxuan Xu, Yan Yan, Nicholas Sunday, Irina Artsimovitch, David Dunlap, Laura Finzi, "Force and GreA modulate transcription elongation through obstacles" 2nd DNA and Interacting Proteins as Single Molecules - In Vitro and In Vivo Conference, Nassau, Bahamas, Feb 20-23, 2020.

Wenxuan Xu, Yan Yan, Irina Artsimovitch, David Dunlap, Laura Finzi, "Positive supercoiling ahead of RNA polymerase aids exit from protein-mediated loops" 64th Biophysical Society Meeting, San Diego, Feb 15-19, 2020.

Domenico Salerno, Francesco Mantegazza, Valeria Cassina, Claudia Marrano, Matteo Cristofalo, Qing Shao, Laura Finzi, David Dunlap, "Nanomechanics of negatively supercoiled diaminopurine-substituted DNA", 66th Biophysical Society Annual Meeting, February 19-23, 2022, San Francisco, CA, USA.

Jin Qian, David Dunlap, Laura Finzi, "A thermodynamic model of bacterial transcription." 66th Biophysical Society Annual Meeting, February 19-23, 2022, San Francisco, CA, USA.

Laura Finzi, Wenxuan Xu, Yan Yan, Irina Artsimovitch and David Dunlap, "positive supercoiling facilitates RNAP elongation past protein-mediated DNA loops." 66th Biophysical Society Annual Meeting, February 19-23, 2022, San

Francisco, CA, USA.

Yue Lu, Gustavo Borjas, Zsuzsanna Voros, Ian Dodd, Keith Shearwin, David Dunlap and Laura Finzi, "Protein mediating different DNA topologies block RNAP elongation with different efficacy." 66th Biophysical Society Annual Meeting, February 19-23, 2022, San Francisco, CA, USA. Selected oral presentation.

Valeria Cassina, Domenico Salerno, Francesco Mantegazza, Matteo Cristofalo, Qing Shao, Laura Finzi, David Dunlap, "Nanomechanics of negatively supercoiled diaminopurine-substituted DNA", Les Houches, Fr, Feb 27-Mar 4, 2022. Selected oral presentation.

David Dunlap & Laura Finzi, "Forcing transcription through roadblocks", Single Molecule Biophysics Conference, Aspen, CO, January 6-13. 2023. Selected oral presentation

Laura Finzi & David Dunlap, "Tension and roadblocks regulate transcription recycling", Single Molecule Biophysics Conference, Aspen, CO, January 6-13. 2023.

Jin Qian, Irina Artsimovitch, Yan Yan, Wenxuan Xu, David Dunlap, and Laura Finzi, "Force biases transcription output from converging or diverging genes", Single Molecule Biophysics Conference, Aspen, CO, January 6-13. 2023.

Jin Qian, Irina Artsimovitch, Yan Yan, Wenxuan Xu, David Dunlap, and Laura Finzi, "Force and DNA-Bound Proteins Bias Transcription Output from Converging and Diverging Genes", 67th Biophysical Society Annual Meeting, San Diego, CA, February 18-22, 2023. Selected oral presentation.