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EDUCATION

1995	Ph.D. (Physics), McGill University, Montréal, Canada. (Dean's Honour List) *"Intensity fluctuation spectroscopy with coherent X-rays."* Supervisor: Professor Mark Sutton.
1990	M.Sc. (Physics), University of Waterloo, Waterloo, Ontario, Canada. *"A study of high purity Cd_xSe_{1-x} vacuum deposited thin films."* Supervisor: Professor D.E. Brodie.
1987	B.Sc. (Physique), Université Laval, Ste-Foy, Canada.

ACADEMIC AWARDS

1996-97	Natural Science and Engineering Research Council of Canada (NSERC) postdoctoral fellowship.
1992-93	Fonds aux Chercheurs et à l'Aide à la Recherche du Québec (FCAR) doctoral fellowship and McGill University Carl Reinhart Fellow.
1990-92	NSERC doctoral scholarship.
1988-90	NSERC master's scholarship and University of Waterloo fellowship.
1987-86	NSERC summer student scholarships, at the University of Toronto.

PROFESSIONAL MEMBERSHIP AND SERVICE

1989-	Member of the Canadian Association of Physicists
1991-2005,2022-	Member of the American Physical Society
1989-2006	Member of the Materials Research Society
1999-	Member of the American Association for the Advancement of Science
Feb. 2002-Apr. 2006	Co-chair, APS Technical Working Group
2003-2006	Chair, APS General Users Review Panel on Instrumentation

2006-	Argonne Center for Nanomaterials Proposal Review Panel
2007-2014	Ultrafast Special Interest Group, APS, Webmaster and co-organizer
2008	External reviewer, Director Review of LUSI, LCLS, SLAC March 3-5, 2008
2008	Future of X-ray Operation and Research (XOR) Committee
2009	Advanced Photon Source Upgrade Technical Advisory committee
May 2010-2013	Advanced Photon Source User Organization Steering Committee
Aug. 2011-2012	Advanced Photon Source General User Program Advisory Committee
Aug. 2011-2013	External reviewer of the Dynamic Compression Sector Director's Review.
2012	Reviewer of the NE-CAT Microfocusing Optics Upgrade.
2014-2015	External Reviewer of the Swiss FEL Experimental Station A Conceptual and Techical Design reviews, Paul Scherrer Institute, Switzerland.
Jul. 2014-Jul. 2016	Advanced Photon Source General User Program Review Panel
Jul. 2016-	NE-CAT Technical Advisory Committee member for NIH grant.
Jan. 2023-	Member at large, Prairie Section of the American Physcal Society.

WORK AND TEACHING EXPERIENCE

Aug. 2011-	**Physicist, X-ray Science Division, Advanced Photon Source, Argonne National Laboratory** Since 2014, I support users on beamline 8-ID, which specializes on coherent x-ray scattering and x-ray photon correlation spectroscopy. From 2011-2013, I was the Technical Lead for the three Ultrafast beamlines in the short-pulse APS-Upgrade project, and I was a beamline scientist at Sector 7 as stated below.
2004-2011	**Beamline Scientist, X-ray Science Division, Advanced Photon Source, Argonne National Laboratory (Associate Research Scientist level).** My responsibilities as Sector 7 Coordinator included the daily administration of the 7-ID beamline operation, the co-supervision of four PhD scientists and a scientific associate. In 2008-2009, I worked on the completion of the 7-BM beamline which focuses on time-resolved microfocused radiography. I also continued my operation and research role at Sector 7 started in 1998.
1998-2004	**Senior Research Associate in the Physical Sciences II, Department of Physics, University of Michigan.** As a beamline Scientist for the University of Michigan, Howard University, Lucent Technologies-Bell Labs Collaborative Access Team (MHATT-CAT) at the Advanced Photon Source (APS), my task was to support the operation of the MHATT-CAT insertion device beam line, to participate in the scientific and professional activities of the CAT, to help users of this facility to perform their experiments, and to pursue an active research program focused on coherent and incoherent time-resolved X-ray scattering techniques. While stationed at the APS, I became a critical element in the operation of a state of the art synchrotron radiation research facility. In 2001, I became the Sector 7 Coordinator.

1998	**Discussion Instructor at the Department of Physics, University of Michigan.** I taught three sections of Introduction to Electromagnetism. The students teaching evaluation is available upon request.
1996-98	**Postdoctoral Fellow at the Department of Physics of the University of Michigan.**
1991-95	**Teaching Assistant, Department of Physics, McGill University.** I marked assignments for 3rd year Electromagnetism, Biophysics and 2nd year Thermodynamics.
1994	**Assistant System Manager** of the condensed matter physics computer system.
1988-90	**Teaching Assistant, Department of Physics, University of Waterloo.** I marked first year physics, 4th year optics and graduate quantum mechanics.
1988	**Instructor, Extension de l'enseignement, Université Laval, Ste-Foy, Québec.** I taught three first year physics courses: mechanics, electromagnetism and optics.
1987-88	**Substitute teacher, Ecole Polyvalente LaCamaradière, Québec, Québec.**

Professional Awards

June 2021	Argonne Impact Award for significant efforts in support of Wide-Angle XPCS user experiments at 8-ID-E

Grants

2001-2003	*Development of Lithium-based x-ray compound refractive lenses*, Principal Investigator Nino Pereira, Ecopulse Inc, Phase I and II SBIR contract N00178-02-C-3119, from the US Missile Defense Agency.
October 2007-2009	*"Novel Concepts in Streak-Camera Development, and Applications"*, Bernhard W. Adams, K. Attenkofer, Eric M. Dufresne, E.C. Landahl, T. Rajh, L. X. Chen, A. Miceli, J. Lee, S. Ross, Strategic LDRD FY08-09.
October 2007-2010	*"Ultrafast x-ray tracking of laser-controlled molecular motions"*, Linda Young, L. Chen, R. Dunford, Elliot Kanter, B. Kraessig, R. Santra, S. Southworth, D. Tiede, S. Vajda, B. Adams, D. Arms, K. Attenkofer, Eric Dufresne, E. Landahl, D. Walko and J. Wang, Strategic LDRD FY08-10.
October 2014-September 2017	*"Unraveling Mesoscale Spatial-temporal Correlations in Materials Using Coherent X-ray Probes"*, lead PI: Alec Sandy, Strategic LDRD FY15-17.
October 2021-	*"Intermittent Dynamics in Hard and Soft Materials enabled by APS-U"*, lead PI: Suresh Narayanan, Strategic LDRD FY22.

TALKS and CONFERENCE PRESENTATIONS

September 2023	Invited talk, at the LCLS User meeting workshop on Coherent Imaging and Dynamics entitled X-Ray Photon Correlation Spectroscopy – APSU Feature Beamline (8-ID XPCS) and itsWide-Angle instrument, SLAC, Menlo Park, CA.

July 2023	Invited talk, at the APS-U First Experiments Workshop for X-ray Photon Correlation Spectroscopy (XPCS) – Hard Matter, entitled XPCS – APSU Feature Beamline (8-ID XPCS) and its Wide-Angle instrument
March 2022	Invited talk, at the 14th International conference on Synchrotron Radiation Instrumentation SRI 2021, Hamburg, Germany (virtual), entitled Recent Detector and Technique Developments for Microsecond X-Ray Photon Correlation Spectroscopy at the Advanced Photon Source.
October 2021	Invited talk, at the CHEX Workshop on data handling, entitled Wide-Angle X-Ray Photon Correlation Spectroscopy (XPCS) beamline scientists perspective 8-ID-E, Argonne, IL.
September 2021	Invited talk, APS 8-ID Virtual Town Hall Meeting, entitled 8-ID-E Wide-Angle X-Ray Photon Correlation Spectroscopy (XPCS) instrument overview.
May 7, 2021	Invited talk, at Workshop 7 of the APS User Meeting, entitled X-Ray Photon Correlation Spectroscopy (XPCS) Beamline overview, Argonne, IL.
May 5, 2021	Invited talk, at Workshop 4 of the APS User Meeting, entitled WA-XPCS at 8-ID-E, Argonne, IL.
April 2020	Invited talk, JCESR working group, Argonne and SLAC.
March 2020	Invited talk, APS Scientific Advisory Committee 8-ID beamline Review, Argonne IL.
September 2019	Invited talk at the APS Technical Working Group, Argonne IL.
September 2019	Invited talk at the Workshop on Coherence at the ESRF-EBS, ESRF, Grenoble, France (workshop link).
October 2018	Invited talk at the Advanced X-ray Methods & Instrumentation Workshop for LCLS-II-HE Science, SLAC National Accelerator Laboratory, Menlo Park, CA. (workshop link).
July 2018	Invited talk at the APS-U Technical Review of the XPCS beamline, Argonne National Laboratory, Argonne, IL.
March 2018	Invited talk at the APS Small-Angle X-ray Scattering Special Interest Group.
January 2018	Physics Department Colloquium at Truman State University, Kirksville MO.
October 2017	Invited talk at the HPCAT workshop on "Probing Materials under Extreme Conditions Using Synchrotron Radiation"
September 2017	Invited talk at the APS workshop on Planning the First Experiments with the Helical Superconducting Undulator at 7ID.
October 2016	Invited talk at the APS Technical Working Group, Argonne IL.
June 2016	Contributed talk at Coherence 2016, Saint-Malo, France.
May 2015	Two talks, one in the Chemistry & Catalysis Workshop, and one in the Advanced Materials/Mesoscale Engineering Workshop on Early experiments and unique opportunities with the APS MBA Upgrade
February 2015	Invited talk at the APS Technical Working Group, Argonne, IL

January 2014	Invited talk at the Canadian Light Source, Saskatoon, Canada
September 2013	Invited talk at the Ultrafast SIG meeting.
June 2013	One invited talk and one contributed talk at the 17th Panamerican SRI 2013 Conference at NIST, in Gaithersburg, MD.
June 2013	Invited talk, European X-ray Free Electron Laser (XFEL) Gmbh, Hamburg, Germany.
May 2013	Three invited talks during the APS User Meeting, detailing the scope of the Ultrafast beamlines in the APS Upgrade.
September 2012	Invited talk at the Ultrafast SIG meeting.
September 2012	Invited Colloquium at the Northern Illinois University Department of Physics.
October 2011	Invited talk at the Time Resolved X-Ray Science at High Repetition Rate Workshop of the SSRL-LCLS Users Meeting, SLAC National Lab, CA.
June 2011	Invited talk at the Ultrafast SIG meeting.
May 2011	Invited talk at the NSLS CFN joint Users Meeting, Workshop 7: X-ray Diffraction and Spectroscopy to Study Dynamic Phenomena under Extremes.
Apr. 2011	Invited talk at the Mechanical Engineering and Design group luncheon seminar.
Mar. 2011	Invited talk, APS Technical Working Group, Chicago, IL
Feb. 2011	Invited talk, CLASSE seminars, CHESS, Cornell University, Ithaca, NY
Jan. 2011	Invited talk, Dynamic Phenomena Under Extremes, University of Texas, Austin, TX
Dec. 2010	Invited talk, Technical review of the SPX beamlines, Argonne.
Sep. 2010	Contributed talk, Pan-American Synchrotron Radiation Instrumentation Conference 2010, Chicago, IL.
May 2010	Invited talk, Workshop on Options for Ultrafast Science at NSLS-II, Brokkhaven National Lab, Upton NY.
Apr. 2010	Invited talk, XFEL Gmbh, Hamburg, Germany
Nov. 2009	Invited talk, University of Ottawa, Ottawa, Canada.
Oct. 2009	Invited talk, APS Scientific Advisory Committee Meeting, talk on options for time-resolved science in the Upgrade of APS.
Oct. 2009	Contributed talk, Workshop on applications of Coherent X-ray Methods, Melbourne University, Melbourne, Australia.
Sep. 2009	Contributed talk, International SRI 2009 conference Melbourne, Australia
Jun. 2008	Contributed talk, Canadian Association of Physicists, Université Laval, Québec, Canada
Jun. 2007	Contributed talk, Coherence 2007, International Workshop on Phase Retrieval and Coherent Scattering, Monterrey CA
Jun. 2007	Contributed talk, Canadian Association of Physicists, University of Saskatchewan, Saskatoon Saskatchewan

May 2007	APS User Seminar, Chicago IL.
Apr. 2007	Invited talk, SRI 2007, Satellite Workshop on Coherence and Polarization
Apr. 2007	Chair with Joseph Holmes the satellite workshop on Coherence and Polarization at SRI 2007
Apr. 2007	Contributed talk and one poster, SRI 2007, Baton Rouge LA
Jun. 2006	Contributed talk, and one poster, the 2006 International Synchrotron Radiation Instrumentation Conference in Korea.
Jun. 2006	Contributed talk, Canadian Association of Physicists, Brock University, St-Catherines ON.
Feb. 2006	Poster, Gordon 2006 Conference on Ultrafast Phenomena, CA.
Dec. 2005	APS Technical Working Group, Chicago IL.
Oct. 2005	APS Technical Working Group, Chicago IL.
Jun. 2005	APS User Seminar, Chicago IL.
Aug. 2004	Invited talk, 2004 XOR Retreat, Argonne IL.
Jun. 2004	Invited talk, CUOS, Univ. of Michigan, Ann Arbor MI.
Mai. 2004	Poster presented at the Ultrafast 2004 conference, San Diego CA
Apr. 2004	APS Technical Working Group, Chicago IL.
Aug. 2003	Two posters presented at SRI 2003, the Synchrotron Radiation Instrumentation Conference in San Francisco, CA.
Jun. 2003	Invited talk, APS,ESRF,Spring-8 Workshop, ANL, IL
May. 2003	Invited talk, Univ. of Michigan, CUOS, Ann Arbor MI.
Mar. 2003	APS Technical Working Group, Chicago IL.
Dec. 2002	Invited talk, INRS-Energie, Montreal, Canada
Sept. 2002	APS Technical Working Group, Chicago IL.
Aug. 2002	APS Technical Working Group, Chicago IL.
Feb. 2002	APS Technical Working Group, Chicago IL.
Jan. 2002	APS User Seminar, Chicago, IL.
Sep. 2001	APS Technical Working Group, Chicago IL.
Aug. 2001	Two posters presented at SRI 2001, the Synchrotron Radiation Instrumentation Conference in Madison, WI.
Mar. 2001	APS Technical Working Group, Chicago IL.
Oct. 2000	APS Technical Working Group, Chicago IL.
June 2000	Talk at the Canadian Association of Physicist Conference, Toronto, ON, Canada.
Oct. 1999	Poster presented at SRI 99, the Synchrotron Radiation Instrumentation Conference at SSRL, Palo Alto, CA.

Aug. 1999	Poster presented at X99, the 1999 X-ray Absorption and Spectroscopy Conference, Chicago, IL.
June 1998	Talk at the Canadian Association of Physicist Conference, Waterloo, ON, Canada.
May 1997	Invited talk at the NSLS Annual Users' Meeting, Workshop on XPCS, Upton, NY.
Nov. 1996	Invited talk, Department of Physics, Oakland University, Rochester, MI.
Jan. 1996	NSLS lunch time seminar, Brookhaven National Labs, Upton, NY.
June 1995	Canadian Association of Physicist Conference, Québec, PQ, Canada.
May 1995	Department of Physics, University of Michigan, Ann Arbor MI.
May 1995	Department of Physics, Brookhaven National Labs, Upton, NY.
June 1990	Poster presented at the Canadian Association of Physicist Conference, Guelph ON, Canada.

Workshop and conference organization

September 25, 2023	LCLS User meeting workshop on Coherent Imaging and Dynamics, co-organized with Yue Cao, Hasan Yavas, Roopali Kukreja, and Paul Fuoss.
July 18-19, 2023	Hybrid First Experiments Workshop for X-ray Photon Correlation Spectroscopy (XPCS) beamline at the APS, co-organized with Yue Cao, Qingteng Zhang, and Suresh Narayanan.
May 7, 2021	APS WK-7: Wide-angle XPCS and Application of Speckle Spatio-temporal Correlation in Materials, co-organizer with Yue Cao.
May 5, 2021	APS Training 4: A Tutorial Workshop on XPCS for Probing Dynamics in Soft and Hard Matter, co-organizer with Zhang Jiang, and Qingteng Zhang.
May 2, 2017	APS-U X-ray Photon Correlation Spectroscopy Beamline Workshop, discussion chair.
October 2013	Workshop on new science opportunities provided by a multi-bend achromat lattice at the APS October 21 & 22, Timing and Dynamics breakout session co-organizer.
May 2013	APS User meeting Satellite Workshop 13 Time-resolved X-ray Science at BioCARS: Past, Present, and Future, co-organized with Robert Henning, Vukica Srajer, and Philip Anfinrud.
October 2011	Workshop 1: Time Resolved X-Ray Science at High Repetition Rate of the SSRL-LCLS Users Meeting, SLAC National Lab, CA., co-organized with J. Corbett, C.C. Kao, D. Keavney, A. Lindenberg, A. Mehta, L. Young
June 2011	XDL2011 Workshop 3- Ultra-fast Science with "Tickle and Probe", co-organized with Robert Schoenlein, Brian Stephenson, and Joel Brock.
May 2011	APS User meeting APS Workshop 3 Opportunities in Magnetic, Atomic, and Molecular Dynamics with a Short Pulse Soft X-ray Source, co-organized with David Keavney, and Yuelin Li.

Refereeing work.

Reviewed articles for Journal of Synchrotron Radiation, Review of Scientific Instrument, and Physical Review Letters.

MSc Thesis committee for G. Jackson Williams, DePaul University 2010. PhD Thesis committee for Amlan Das, University of Illinois at Urbana Champaign (2021).

PUBLICATIONS

Refereed Journal Articles

1. *Intermittent cluster dynamics and temporal fractional diffusion in a bulk metallic glass*
   Birte Riechers, Amlan Das, Eric Dufresne, Peter M. Derlet and Robert Maass,
   Nature Communications **15** Article number:6595 (2024), DOI: 10.1038/s41467-024-50758-3.

2. *AI-NERD: Elucidation of Relaxation Dynamics Beyond Equilibrium Through AI-informed X-ray Photon Correlation Spectroscopy,*
   James P. Horwath, Xiao-Min Lin, Hongrui He, Qingteng Zhang, Eric M. Dufresne, Miaoqi Chu, Subramanian K.R.S. Sankaranarayanan, Wei Chen, Suresh Narayanan, and Mathew J. Cherukara,
   Nature Communications **15**, 5945 (July) (2024), DOI: 10.1038/s41467-024-49381-z.

3. *X-ray-induced piezoresponse during X-ray photon correlation spectroscopy of PbMg1/3Nb2/3O3*,
   Dina Sheyfer, Hao Zheng, Matthew Krogstad, Carol Thompson, Hoydoo You, Jeffrey A. Eastman, Yuzi Liu, Bi-Xia Wang, Zuo-Guang Ye, Stephan Rosenkranz, Daniel Phelan, Eric M. Dufresne, G.Brian Stephenson, and Yue Cao, J. Synchrotron Rad. **31**, 55–64 (2024).
   DOI: 10.1107/S1600577523009116

4. *Unveiling the Structural Origins of Dynamic Diversity in Pd-Based Metallic Glasses*, Tianding Xu, Xiao-Dong Wang, Eric M. Dufresne, Kevin A. Beyer, Pengfei An, Jingyuan Ma, Nan Wang, Suya Liu, Qing-Ping Cao, Shao-Qing Ding, Dong-Xian Zhang, Lei Zheng, Jing Zhang, Tian-Dou Hu, Zheng Jiang, Yuying Huang, and Jian-Zhong Jiang, Small 2309331 (11 January) (2024),
   DOI: 10.1002/smll.202309331

5. *Probing transference and field-induced polymer velocity in block copolymer electrolytes,*
   Michael D. Galluzzo, Hans-Georg Steinrück, Christopher J. Takacs, Aashutosh Mistry, Lorena S. Grundy, Chuntian Cao, Suresh Narayanan, Eric M. Dufresne, Qingteng Zhang, Venkat Srinivasan, Michael F. Toney, and Nitash P. Balsara, Cell Reports Physical Science 5, 101766 (17 January) (2024), DOI: 10.1016/j.xcrp.2023.101766

6. *Correction to 'Advancing Chemical Separations: Unraveling the Structure and Dynamics of Phase Splitting in Liquid–Liquid Extraction'*, D. Sheyfer, Michael J. Servis, Qingteng Zhang, J. Lal, T. Loeffler, E. M. Dufresne, A. R. Sandy, S. Narayanan, Subramanian K. R. S. Sankaranarayanan, R. Szczygiel, P. Maj, L. Soderholm, Mark R. Antonio, and G. B. Stephenson, The Journal of Physical Chemistry B (September 2023) DOI: 10.1021/acs.jpcb.3c05648.

7. *Intermittent Defect Fluctuations in Oxide Heterostructures*, Qingteng Zhang, Gang Wan, Vitalii Starchenko, Guoxiang Hu, Eric M. Dufresne, Hua Zhou, Hyoungjeen Jeen, Irene Calvo Almazan, Yongqi Dong, Huajun Liu, Alec R. Sandy, George E. Sterbinsky, Ho Nyung Lee, P. Ganesh, and Dillon D. Fong, Advanced Materials (August 14, 2023, open access) DOI: 10.1002/adma.202305383.

8. *Robotic Pendant Drop: Containerless Liquid for microsecond-resolved, AI-executable XPCS*, Doga Yamac Ozgulbas, Don Jensen Jr., Rory Butler, Rafael Vescovi, Ian T. Foster, Michael Irvin, Yasukazu Nakaye, Miaoqi Chu, Eric M. Dufresne, Soenke Seifert, Gyorgy Babnigg, Arvind Ramanathan and Qingteng Zhang, Light: Science & Applications **12**, article number: 196 (Aug. 18) (2023)
   DOI: 10.1038/s41377-023-01233-z.

9. *The Dynamics of Oxygen Ion Exchange in Epitaxial Strontium Cobaltite Bilayers*, Jill K. Wenderott, Eric M. Dufresne, Yan Li, Hui Cao, Qingteng Zhang, K. V. L. V. Narayanachari, D. Bruce Buchholz, Supratik Guha, and Dillon D. Fong, Advanced Materials Interfaces 2300127 (22 June 2023)
   DOI: 10.1002/admi.202300127.

10. *Phase transition dynamics in a complex oxide heterostructure*, Qingteng Zhang, Guoxiang Hu, Vitalii Starchenko, Gang Wan, Eric M. Dufresne, Yongqi Dong, Huajun Liu, Hua Zhou, Hyoungjeen Jeen, Kayahan Saritas, Jaron T. Krogel, Fernando A. Reboredo, Ho Nyung Lee, Alec R. Sandy, Irene Calvo Almazan, Panchapakesan Ganesh, and Dillon D. Fong. Phys. Rev. Lett. **129** No 23 (December 2) 235701 (2022) DOI: 10.1103/PhysRevLett.129.235701.

11. *pyXPCSviewer: an open-source interactive tool for X-ray photon correlation spectroscopy visualization and analysis,* Miaoqi Chu, Jeffrey Li, Qingteng Zhang, Zhang Jiang, Eric M. Dufresne, Alec Sandy, Suresh Narayanan and Nicholas Schwarz, J. Synchrotron Rad. **29**, (July) 1122–1129 (2022), DOI: 10.1107/S1600577522004830.

12. *Observation of Collective Molecular Dynamics in a Chalcogenide Glass: Results from X-ray Photon Correlation Spectroscopy,* Jianheng Li, FNU Meera, Spencer Jeppson, Louie Zhong, Eric M. Dufresne, Bruce Aitken, Sabyasachi Sen and Roopali Kukreja, Journal of Physical Chemistry B, **126**, *cover* of issue 28, 5320–5325 (June 22) (2022) DOI: 10.1021/acs.jpcb.1c10267.

13. *Relaxation and Aging of Nanosphere Assemblies at a Water-Oil Interface*, Paul Y. Kim, Zachary Fink, Qingteng Zhang, Eric M. Dufresne, Suresh Narayanan, and Thomas P. Russell, ACS Nano, **16**, (June 6), 8967–8973 (2022) DOI: 10.1021/acsnano.2c00020.

14. *Microscopic Dynamics of Inverse Wormlike Micelles Probed Using X-ray Photon Correlation Spectroscopy*, Noah H. Cho, Qingteng Zhang, Eric M. Dufresne, Suresh Narayanan, and Jeffrey J. Richards, ACS Macro Lett. 11, (April 7), 575–579 (2022) DOI: 10.1021/acsmacrolett.1c00651.

15. *Advancing Chemical Separations: Unraveling the Structure and Dynamics of Phase Splitting in Liquid-Liquid Extraction*, D. Sheyfer, Michael J. Servis, Qingteng Zhang, J. Lal, T. Loeffler, E. M. Dufresne, A. R. Sandy, S. Narayanan, Subramanian K.R.S. Sankaranarayanan, R. Szczygiel, P. Maj, L. Soderholm, Mark R. Antonio, and G. B. Stephenson The Journal of Physical Chemistry B **126** (March 22), 2420–2429 (2022) DOI: 10.1021/acs.jpcb.1c09996

16. *Shape memory effect in metallic glasses*, Tianding Xu, Xiao-Dong Wang, Eric M. Dufresne, Yang Ren, Qingping Cao, Dongxian Zhang, and Jian-Zhong Jiang, Matter, **4** no.10 October 6, 3327-3338 (2021) DOI: 10.1016/j.matt.2021.08.010.

17. *Fast nanoparticle rotational and translational diffusion in synovial fluid and hyaluronic acid solutions*, Mythreyi Unni, Shehaab Savliwala, Brittany D. Partain, Lorena Maldonado-Camargo, Qingteng Zhang, Suresh Narayanan, Eric M. Dufresne, Jan Ilavsky, Pawel Grybos, Anna Koziol, Piotr Maj, Robert Szczygiel, Kyle Allen, and Carlos Rinaldi, Science Advances 7 (June) (27) (2021) DOI: 10.1126/sciadv.abf8467.

18. *Use of Continuous Sample Translation to Reduce Radiation Damage for XPCS Studies of Protein Diffusion*, Laurence Lurio, George Thurston, Qingteng Zhang, Suresh Narayanan and Eric Dufresne, J. Synchrotron Rad. **28** 490-498 (accepted Jan 2, 2021) DOI: 10.1107/S1600577521000035.

19. *Anomalous fast atomic dynamics in bulk metallic glasses*, Tianding Xu, Xiao-Dong Wang, Eric M. Dufresne, Yang Ren, Qingping Cao, Dongxian Zhang, and Jianzhong Jiang, Materials Today Physics, **17** 100351 (March 2021) DOI: 10.1016/j.mtphys.2021.100351.

20. *High-Throughput XPCS Enabled by Data Management Workflow and High Performance Computing*, Qingteng Zhang, Eric M. Dufresne, Yasukazu Nakaye, Pete R. Jemian, Takuto Sakumura, Yasutaka Sakuma, Joseph Ferrara, Piotr G. Maj, Asra Hassan, Divya Bahadur, Subramanian Ramakrishnan, Faisal Khan, Sinisa Veseli, Alec R. Sandy, Nicholas Schwarz and Suresh Narayanan, J. Synchrotron Rad. Vol. 28, Part 1, 259-265 (Jan. 2021) DOI: 10.1107/S1600577520014319.

21. *The Effect of Intensity Fluctuations on Sequential X-ray Photon Correlation Spectroscopy at the X-ray Free Electron Laser Facilities*, Yue Cao, Dina Sheyfer, Zhang Jiang, Siddharth Maddali, Hoydoo You, Bi-Xia Wang, Zuo-Guang Ye, Eric M. Dufresne, Hua Zhou, G. Brian Stephenson and Stephan O. Hruszkewycz, Crystals **10**, Art. Num. 1109 (Dec 2020) DOI: 10.3390/cryst10121109.

22. *Focusing a round coherent beam by spatial filtering the horizontal source*, Eric M. Dufresne, Suresh Narayanan, Ruben Reininger, Alec R. Sandy and Larry Lurio, J. Synchrotron Rad. **27** 1528–1538 November (2020) DOI: 10.1107/S1600577520012163.

23. *Concentration and Velocity Profiles in a Polymeric Lithium-ion Battery Electrolyte*, H.-G. Steinrück, C. J. Takacs, H.-K. Kim, D. M. Mackanic, B. Holladay, C. Cao, S. Narayanan, E. M. Dufresne, Y. Chushkin, B. Ruta, F. Zontone, J. Will, O. Borodin, S. K. Sinha, V. Srinivasan, and M. F. Toney, Energy & Environmental Science, Published September 15 (2020) DOI: 10.1039/D0EE02193H.

24. *Nanoscale Critical Phenomena in a Complex Fluid Studied by X-ray Photon Correlation Spectroscopy*, D. Sheyfer, Q. Zhang, J. Lal, T. Loeer, E. M. Dufresne, A. R. Sandy, S. Narayanan, S.K.R.S. Sankaranarayanan, R. Szczygiel, P. Maj, L. Soderholm, M. R. Antonio, and G. B. Stephenson, Phys. Rev. Lett. 125, 125504 (2020) DOI: 10.1103/PhysRevLett.125.125504.

25. *Structural dynamics and rejuvenation during cryogenic cycling in a Zr-based metallic glass*, A. Das, E. M. Dufresne, and R. Maass, Acta Materalia, **196** 723-732, September 1 (2020). DOI: 10.1016/j.actamat.2020.06.063.

26. *Stress breaks universal aging behavior in a metallic glass*, Amlan Das, Peter M. Derlet, Chaoyang Liu, Eric M. Dufresne, and Robert Maass, Nature Communications 10 Art. num. 5006 (November 1, 2019). DOI: 10.1038/s41467-019-12892-1.

27. *Evolution of Structure and Dynamics of Thermo-Reversible Nanoparticle Gels - A Combined XPCS and Rheology Study*, Divya Bahadur, Qingteng Zhang, Eric Dufresne, Pawel Grybos, Piotr Kmon, Robert Leheny, Piotr Maj, Suresh Narayanan, Robert Szczygiel, James Swan, Alec Sandy, and Subramanian Ramakrishnan, J. Chem. Phys. 151, 104902 (2019) DOI: 10.1063/1.5111521.

28. *α-Synuclein Sterically Stabilizes Spherical Nanoparticle-Supported Lipid Bilayers*, Peter J. Chung, Qingteng Zhang, Hyeondo Luke Hwang, Alessandra Leong, Piotr Maj, Robert Szczygiel, Eric M. Dufresne, Suresh Narayanan, Erin J. Adams, and Ka Yee C. Lee, ACS Appl. Bio Mater. (published February 28) **2**, 1413–1419 (2019) DOI: 10.1021/acsabm.8b00774.

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