Curriculum Vitae
Dr. Maikel Christian Rheinstädter February 5th, 2016

Business Address
Department of Physics and Astronomy
McMaster University
1280 Main Street West
Hamilton, ON
L8S 4M1

Current Status at McMaster
Tenured Associate Professor, Department of Physics and Astronomy

Educational Background
2002: Doctor of Natural Sciences (Magna cum Laude), Saarland University, Supervisor K. Knorr
1997: Diplom Physik, with distinction, Saarland University, Supervisor M. Enderle (M.Sc.)
1994: Vordiplom Mathematik, Saarland University (B.Sc. Mathematics)
1993: Vordiplom Physik, Saarland University (B.Sc. Physics)
1991: Abitur (general qualification for university entrance), with distinction

Professional Organizations
Biophysical Society, American Physical Society, Canadian Association of Physicists, German Physical Society, German Biophysical Society

Employment History

2015–present:	Associate Director, Origins Institute, McMaster University, Hamilton, ON, Canada
2013–present:	Associate Professor of Physics, Department of Physics and Astronomy, McMaster University, Hamilton, ON, Canada
10/2009:	Visiting Professor, Departamento de Fisica de la Pontificia Universidad Católica de Chile, Santiago de Chile, Chile
2009–2013:	Assistant Professor of Physics, Department of Physics and Astronomy, McMaster University, Hamilton, ON, Canada
2006–2008:	Assistant Professor of Physics, Department of Physics and Astronomy, University of Missouri-Columbia, Columbia, MO, U.S.A.
2005–2006:	Visiting Scientist, Institut for X-ray Physics, Georg-August Universität Göttingen, Göttingen, Germany with T. Salditt
2004–2006:	Staff Scientist, Institut Laue-Langevin, Grenoble, France, Instrument Responsible IN11, Supervisor: H. Schober
2002–2004:	Postdoctoral Research Associate, Forschungszentrum Jülich, Germany and Institut Laue-Langevin, Grenoble, France, Instrument Responsible IN22, Supervisor: D. Richter
1998–2000:	Software engineer, freelancer, Dialogika GmbH, Dudweiler, Germany
1997–2002:	Research Assistant, Saarland University, Saarbrücken, Germany, Supervisor: K. Knorr

Scholarly and Professional Activities

2015-2016	Member of NSERC Physics Research Tools and Instruments (RTI) Review Committee
2015-2016	Member of Canadian Association of Physicists CAP Science Policy Committee
2015-2017	Editorial Board Member, *Membranes*, MDPI

2015	Guest Editor, Special Issue "Membrane Structure and Dynamics", *Membranes*
2015–present:	Member, Canadian National IUPAP Liaison Committee (CNILC)
2014–2015:	Chair, Division of Medical and Biological Physics (DMBP), Canadian Association of Physicists CAP
2014–2015:	Member, CAP Advisory Council, Canadian Association of Physicists
2013–2016:	Member, Scientific Council, Canadian Institute for Neutron Scattering CINS
2013–2014:	Vice Chair, Division of Medical and Biological Physics (DMBP), Canadian Association of Physicists CAP
2010–2013:	Member of the Science Review Committee for the Oak Ridge National Laboratory's (ORNL) neutron scattering facilities
2009–present:	CNBC Chalk River Proposal Review Coordinator for "Soft Materials"

Conference Organization

- Program committee member, Biology, American Conference on Neutron Scattering (ACNS), Long Beach, CA, July 10-14, 2016.
- Program Chair, Division of Medical and Biological Physics, CAP Congress, June 15-19, 2015, University of Alberta, Edmonton, Alberta.
- Organizer, Canadian Institute for Neutron Scattering Annual General Meeting (CINS-AGM), October 25-26, 2013, McMaster University, Hamilton, ON, Canada
- Organizer, SoftmatterBio@MAC Retreat, Workshop of the Soft-Condensed Matter & Biophysics group at McMaster University, November 27-28, 2009, The Westwind Inn, Buckhorn, ON, Canada
- Organizing Committee Member, NSE2005, International Workshop, September 7-10, 2005, ILL, Grenoble, France

Journal Referee

Physical Review Letters (14), Physical Review B (2), Physical Review E (11), Biophysical Journal (4), Biophysical Chemistry (1), Langmuir (5), Soft-Matter (4), European Physical Journal E (3), Journal of the American Chemical Society (3), Journal of Structural Biology (1), Journal of Molecular Liquids (1), Journal of Lipid Research (1), BBA – Biomembranes (9), European Biophysics Journal (1), Philosophical Magazine (1), Measurement Science and Technology (1), Journal of Physics (1), Langmuir (1), ACS Nano (2), The Journal of Physical Chemistry (1), Zeitschrift für Physikalische Chemie (1), Frontiers in Plant Science (1), FEBS Letters (1), RSC Advances(1), Journal of Applied Crystallography (1), PLOS ONE (2), ACS Applied Materials & Interfaces (1), Nature Communications (1), Biomacromolecules (2)

External Grant Review

NSERC (3), U.S. Department of Energy DOE (1), University of Missouri Research Board (2), Czech Science Foundation (1), Science and Technology Center in Ukraine (1), German Science Foundation DFG (3),

External Beam Time Allocation Reviews

National Institute of Standards and Technology NIST/NCNR (68), Oak Ridge National Laboratory (78), ANSTO Bragg Institute (9), the Austrian Science Fund FWF (1).

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Areas of Interest

Membrane dynamics, dynamics of membrane embedded proteins, interactions between membrane inclusions, protein aggregation, neutron scattering, x-ray scattering, preparation of artificial membranes, development of sample environment (humidity chambers) for neutron and x-ray experiments, development of scattering techniques for the application in biology, undergraduate physics education, undergraduate and graduate student training

Honours

- Young Scientist Award, European Neutron Scattering Association (ENSA) for an outstanding presentation at the European Neutron Scattering Conference (ECNS) 2003
- Early Researcher Award 2012 (ERA), Ontario Ministry of Economic Development and Innovation (MEDI), , "Lost memories – Can we turn back time in Alzheimer's disease?", $140,000
- Early Tenure and promotion to Associate Professor, 2013, Department of Physics and Astronomy, McMaster University
- *Soft Matter* Emerging Investigator 2013, Royal Society of Chemistry
- University Scholar, Nominated, McMaster University 2015

Languages

English, German (Mother-tongue), French (fluent in writing and speaking)

Lifetime Publications

Impact analysis by Google Scholar: Number of citations: 1447, h-index: 21.
Students that I have supervised are underlined. My surname at birth was Steinmetz. Please note that in Physics the position of the last author is usually reserved for the PI; students and post-docs who conducted the research take the first position.

Peer-Reviewed Journal Articles

70. Richard J. Alsop, Adree Khondker, Jochen S. Hub and **Maikel C. Rheinstädter**, 2016, *"The Lipid Bilayer Provides a Site for Cortisone Crystallization at High Cortisone Concentrations"*, accepted for publication in Scientific Reports
69. Jennifer Tang, Richard J. Alsop, Matilda Backholm, Hannah Dies, An-Chang Shi and **Maikel C. Rheinstädter**, 2015, *"Amyloid-β_{25-35} Peptides Peptides Aggregate Into Cross-β Sheets in Unsaturated Anionic Lipid Membranes at High Peptide Concentrations"*, submitted to Soft Matter
68. Richard J. Alsop, Asfia Soomro, Yuchen Zhang, Marc Pieterse, Ayodele Fatona, Kimberly Dej and **Maikel C. Rheinstädter**, 2015, *"Structural Abnormalities in the Hair of a Patient with a Novel Ribosomopathy"*, submitted to PLOS ONE
67. Matthew A. Barrett, Richard Alsop, Thomas Hauss and **Maikel C. Rheinstädter**, 2015, *"The position of Aβ22-40 and Aβ1-42 in anionic lipid membranes containing cholesterol"*, Membranes, 5(4), 824-843.
66. Kelly Cathcart, Amit Patel, Hannah Dies, **Maikel C. Rheinstädter** and Cécile Fradin, 2015, *"The*

effect of cholesterol on the structure of a multi-component membrane with mitochondria-like lipid composition", Membranes, 5(4), 664-684.
1 citation

65. Jennifer Tang, Richard J. Alsop, Matilda Backholm, Hannah Dies and **Maikel C. Rheinstädter**, 2015, *"The Formation of Alzheimer's Plaques in Synthetic Membranes"*, Physics in Canada / La Physique au Canada, 71 (3), 141-143,
64. Jennifer Tang, Richard J. Alsop, Karin Schmalzl, Richard M. Epand and **Maikel C. Rheinstädter**, 2015, *"Strong Static Magnetic Fields Increase the Gel Signal in Partially Hydrated DPPC/DMPC Membranes"*, Membranes 5, 532-552
63. Yuchen Zhang, Richard J Alsop, Asfia Soomro, Fei-Chi Yang and **Maikel C. Rheinstädter**, 2015, *"Effect of shampoo, conditioner and permanent waving on the molecular structure of human hair"*, PeerJ 3:e1296
62. Laura Toppozini, Felix Roosen-Runge, Robert Bewley, Robert Dalgliesh, Toby Perring, Tilo Seydel, Henry R. Glyde, Victoria García Sakai and **Maikel C. Rheinstädter**,, 2015, *"Anomalous and Anisotropic Nanoscale Diffusion of Hydration Water Molecules in Fluid Lipid Membranes"*, Soft Matter, 11, 8354-8371
1 citation
61. Drew Marquardt, Richard J. Alsop, **Maikel C. Rheinstädter** and Thad A. Harroun, 2015, *"Neutron Scattering at the Intersection of Heart Health Science and Biophysics"*, J. Cardiovasc. Dev. Dis. 2(2), 125-140
60. Richard J. Alsop, Clare L. Armstrong, Amna Maqbool, Laura Toppozini and **Maikel C. Rheinstädter**, 2015, *"Cholesterol Expels Ibuprofen from the Hydrophobic Membrane Core and Stabilizes Lamellar Phases in Lipid Membranes Containing Ibuprofen"*, Soft Matter, 11 (24), 4756 – 4767
2 citations
59. Laura Toppozini, Victoria Garcia-Sakai, Robert Bewley, Robert Dalgliesh, Toby Perring and **Maikel C. Rheinstädter**, 2015, *"Diffusion in Membranes: Towards a Two-Dimensional Diffusion Map"*, EPJ Web of Conferences 83, 02019
1 citation
58. Hannah Dies, Bonnie Cheung, Jennifer Tang, **Maikel C. Rheinstädter**, 2015, "*The Organization of Melatonin in Lipid Membranes*", Biochimica et Biophysica Acta - Biomembranes, 1848:1032-1040.
3 citations
57. Richard J. Alsop, Laura Toppozini, Drew Marquardt, Norbert Kucerka, Thad A. Harroun, **Maikel C. Rheinstädter**, 2015, "*Aspirin Inhibits Formation of Cholesterol Rafts in Fluid Lipid Membranes*", Biochimica et Biophysica Acta 1848:805–812,.
7 citations
56. Laura Toppozini, Sebastian Meinhardt, Clare L. Armstrong, Zahra Yamani, Norbert Kučerka, Friederike Schmid, **Maikel C. Rheinstädter**, 2014, "*Structure of Cholesterol in Lipid Rafts*", Phys. Rev. Lett. 113, 228101.
12 citations
55. Fei-Chi Yang, Yuchen Zhang, **Maikel C. Rheinstädter**, 2014, "*The Structure of People's Hair*", PeerJ 2:e619.
1 citation

54. Niels M.B. Smeets, Emilia Bakaic, Francis M. Yavitt, Fei-Chi Yang, **Maikel C. Rheinstädter** and Todd Hoare, 2014, "*Probing the Internal Morphology of Injectable Poly(oligoethylene glycol methacrylate) Hydrogels by Light and Small-Angle Neutron Scattering*", Macromolecules, 47 (17), pp 6017–6027.
4 citations
53. Niels M.B. Smeets, Mathew Patenaude, Dennis Kinio, Emilia Bakaic, Fei-Chi Yang, **Maikel Rheinstädter** and Todd Hoare, 2014, "*Injectable hydrogels with in situ-forming hydrophobic domains: Oligo(DL-lactide) modified poly(oligoethylene glycol methacrylate) hydrogels*", Polym. Chem., ,5:6811-6823,
4 citations
52. **Maikel C. Rheinstädter**, Laura Toppozini, Hannah Dies, 2014, "*The Interaction of Bio-Molecules with Lipid Membranes Studied by X-ray Diffraction*", Zeitschrift für Physikalische Chemie, Zeitschrift für Physikalische Chemie. 228:1105–1120.
2 citations
51. Hannah Dies, Laura Toppozini, **Maikel C. Rheinstädter**, 2014, "*The Interaction Between Amyloid-β Peptides and Anionic Lipid Membranes Containing Cholesterol and Melatonin*", PLoS ONE 9(6): e99124
13 citations
50. Richard J. Alsop, Matthew A. Barrett, Songbo Zheng, Hannah Dies and **Maikel C. Rheinstädter**, 2014, *"Acetylsalicylic Acid (ASA) Increases the Solubility of Cholesterol When Incorporated in Lipid Membranes"*, Soft Matter, 10 (24), 4275 – 4286
10 citations
49. Fei-Chi Yang, Robert Peters, Hannah Dies, **Maikel C. Rheinstädter**, 2014, *"Hierarchical, Self-Similar Structure in Native Squid Pen"*, Soft Matter, 10, 5541
9 citation
48. Clare L. Armstrong, Tilo Seydel, Wolfgang Häussler, John Katsaras, **Maikel C. Rheinstädter**, 2014, *"Nanosecond Lipid Dynamics in Membranes with Cholesterol",* Soft Matter, 10 (15), 2600 – 2611
15 citations
47. Nicole Pinto, Fei-Chi Yang, Atsuko Negishi, **Maikel C. Rheinstädter**, Todd Gillis, and Douglas Fudge, 2014, "*Self-assembly enhances the strength of fibres made from vimentin intermediate filament proteins*", Biomacromolecules, 15 (2), pp 574–581
8 citation
46. Matthew A. Barrett, Songbo Zheng, Laura A. Toppozini, Richard J. Alsop, Hannah Dies, Aili Wang, Nicholas Jago, Michael Moore, **Maikel C. Rheinstädter**, 2013, *"Solubility of Cholesterol in Lipid Membranes and the Formation of Immiscible Cholesterol Plaques at High Cholesterol Concentrations"*, Soft Matter 9 (39), 9342 – 9351
20 citations
45. **Maikel C. Rheinstädter**, Ole G. Mouritsen, *"Small-scale structure in fluid cholesterol-lipid bilayers"*,2013, Current Opinion in Colloid and Interface Science, 18, 440-447
28 citations
44. Clare L. Armstrong, Drew Marquardt, Hannah Dies, Norbert Kučerka, Zahra Yamani, Thad A. Harroun, John Katsaras, An-Chang Shi, **Maikel C. Rheinstädter**, 2013, *"The Observation of Highly Ordered Domains in Membranes with Cholesterol"*, PLoS ONE 8(6): e66162

32 citations

43. Laura A. Toppozini, Hannah Dies, David W. Deamer, **Maikel C. Rheinstädter**, 2013, *"Adenosine monophosphate forms ordered arrays in multilamellar lipid matrices: Implications for the origin of life"*, PLoS ONE 8(5): e62810
10 citations
42. Clare L. Armstrong, Laura A. Toppozini, Hannah Dies, Antonio Faraone, Michihiro Nagao and **Maikel C. Rheinstädter**, 2013, *"Incoherent Neutron Spin-Echo Spectroscopy as an Option to Study Long-Range Lipid Diffusion"*, ISRN Biophysics, Volume 2013, Article ID 439758
6 citation
41. Danny Poinapen, Laura Toppozini, Hannah Dies, Daniel C. W. Brown and **Maikel C. Rheinstädter**, 2013, *"Static Magnetic Fields Enhance Lipid Order in Native Plant Plasma Membrane"*, Soft Matter, 9, 6804
5 citations
40. Atsuko Negishi, Laurent Kreplak, Clare L. Armstrong, **Maikel C. Rheinstädter**, Loong-Tak Lim, Todd E. Gillis, Douglas S. Fudge, 2012, *"The production of fibers and films from solubilized hagfish slime thread proteins"*, Biomacromolecules, 13, 3475-3482
11 citations
39. Laura Toppozini, Clare L. Armstrong, Matthew A. Barrett, Songbo Zheng, Lindy Luo, Hirsh Nanda, Victoria Garcia Sakai, **Maikel C. Rheinstädter**, 2012, *"Partitioning of ethanol into lipid membranes and its effect on fluidity and permeability as seen by X-ray and neutron scattering"*, Soft Matter 8 (47), 11839-11849.
20 citations
38. Clare L. Armstrong, Matthew A. Barrett, Arno Hiess, Tim Salditt, John Katsaras, An-Chang Shi, **Maikel C. Rheinstädter**, 2012, *"Effect of Cholesterol on the Lateral Nanoscale Dynamics of Fluid Membranes"*, European Biophysics Journal 41:901–913.
20 citations
37. Laura Toppozini, Clare L. Armstrong, Martin D. Kaye, Madhusudan Tyagi, Timothy Jenkins, and **Maikel C. Rheinstädter**, 2012, *"Hydration Water Freezing in Single Supported Lipid Bilayers"*, ISRN Biophysics, vol. 2012, Article ID 520307, 7 pages
2 citations
36. Matthew Barrett, Songbo Zheng, Golnaz Roshankar, Richard J. Alsop, Randy K. R. Belanger, Chris Huynh, Norbert Kučerka, and **Maikel C. Rheinstädter**, 2012, *"Interaction of Aspirin (acetylsalicylic acid) with lipid membranes"*,
PLoS ONE 7(4): e34357
23 citations
35. C.L. Armstrong, M. Barrett, L. Toppozini, N. Kučerka, Z. Yamani, J. Katsaras, G. Fragneto, and **M.C. Rheinstädter**, 2011, *"Co-existence of Gel and Fluid Lipid Domains in Single-component Phospholipid Membranes",*
Soft Matter, 2012, 8, 4687-4694.
20 citations
34. C.L. Armstrong**,** M. Trapp, J. Peters, T. Seydel and **M.C. Rheinstädter***,* 2011*, "Short range ballistic motion in fluid lipid bilayers studied by quasielastic neutron scattering*", Soft Matter, 2011, 7, 8358-8362.
- Selected for the September 15, 2011, issue of Virtual Journal of Biological Physics Research

17 citations

33. Matthew Barrett, Andreas Deschner, Jan P. Embs, and **Maikel C. Rheinstädter**, 2011, *"Chain formation in a magnetic fluid under the influence of strong external magnetic fields studied by small angle neutron scattering"*, Soft Matter, 2011, 7, 6678-6683.
12 citations

32. Martin D. Kaye, Karin Schmalzl, Valeria Conti Nibali, Mounir Tarek, and **Maikel C. Rheinstädter**, 2011, *"Ethanol enhances collective dynamics of lipid membranes"*, Phys. Rev. E 83, 050907(R) .
- Selected for the June 1, 2011, issue of Virtual Journal of Biological Physics Research
14 citations

31. Clare L. Armstrong, Erik Sandqvist and **Maikel C. Rheinstädter**, 2011, *"Protein-protein interactions in membranes",* Protein & Peptide Letters, 2011, 18, 344-353
11 citations.

30. Clare L. Armstrong, Erik Sandqvist, Karin Schmalzl, and **Maikel C. Rheinstädter**, 2010, *"Membrane mediated protein-protein interactions",* Physics in Canada 66.3, 189.

29. Clare L. Armstrong, Martin D. Kaye, Michaela Zamponi, Eugene Mamontov, Madhusudan Tyagi, Timothy Jenkins and **Maikel C. Rheinstädter**, 2010, *"Diffusion in single solid supported lipid bilayers studied by quasi-elastic neutron scattering",* Soft Matter, 2010, 6, 5864-5867.
- Selected for the December 1, 2010, issue of Virtual Journal of Biological Physics Research.
24 citations

28. **Maikel C. Rheinstädter**, Rainer Sattler, Wolfgang Häußler, Christian Wagner, 2010, *"Dynamics of polymers in elongational flow studied by the neutron spin-echo technique"*, Physica B 405 3690–3693.

27. G. Pabst, N. Kučerka, M.-P. Nieh, **M.C. Rheinstädter**, J. Katsaras, 2010, *"Applications of neutron and X-ray scattering to the study of membranes"*, Chem. Phys. Lipids 163, 460-479.
88 citations

26. B. Brüning, **M.C. Rheinstädter**, A. Hiess, B. Weinhausen, T. Reusch, S. Aeffner, and T. Salditt, 2010, *"Influence of Cholesterol on the Collective Dynamics of the Phospholipid Acyl Chains in Model Membranes",* Eur. Phys. J. E 31, 419–428.
11 citations

25. **Maikel C. Rheinstädter**, Karin Schmalzl, Kathleen Wood, Dieter Strauch, 2009, *"Protein-Protein Interaction in Purple Membrane",* Phys. Rev. Lett. 103, 128104.
- Selected for the October 1, 2009, issue of Virtual Journal of Biological Physics Research
27 citations

24. Elijah Flenner, Jhuma Das, **Maikel C. Rheinstädter**, Ioan Kosztin, 2009, *"Sub-diffusion and lateral diffusion coefficient of lipid atoms and molecules in phospholipid bilayers",* Phys. Rev. E 79, 011907.
- Selected for the January 15, 2009 issue of Virtual Journal of Biological Physics Research
- Selected for the February 2009 issue of Virtual Journal of Ultrafast Science.
53 citations

23. **Maikel C. Rheinstädter**, Jhuma Das, Elijah J. Flenner, Beate Brüning, Tilo Seydel, and Ioan Kosztin, 2008, *"Motional Coherence in Fluid Phospholipid Membranes",* Phys. Rev. Lett. 101, 248106.
- Selected for the December 15, 2008 issue of Virtual Journal of Biological Physics Research.

- Selected for the January 5, 2009 issue of Virtual Journal of Nanoscale Science & Technology.
35 citations

22. Arne Schäfer,Tim Salditt and **Maikel C. Rheinstädter**, 2008, *"Atomic force microscopy study of thick lamellar stacks of phospholipid bilayers",* Phys. Rev. E **77**, 021905.
- Selected for the February 15, 2008 issue of Virtual Journal of Biological Physics Research.
7 citations

21. Tapan Chatterji, S. Ghosh, A. Singh, L. P. Regnault, and **M. Rheinstädter**, 2007, *"Spin dynamics of YMnO3 studied via inelastic neutron scattering and the anisotropic Hubbard model",* Phys. Rev. B **76**, 144406.
28 citations

20. Jochen S. Hub, Tim Salditt, **Maikel C. Rheinstädter**, and Bert L. de Groot, 2007, *"Short range order and collective dynamics of DMPC bilayers. A comparison between molecular dynamics simulations, x-ray, and neutron scattering experiments",* Biophys. Journal 93, 3156-3168.
46 citations

19. K. Schmalzl, D. Wallacher, M.M. Koza, **M. Rheinstädter**, D. Strauch and K. Knorr, 2007, *"Dynamics of argon in confined geometry",* Eur. Phys. J. Special Topics **141**, 117-120
1 citation.

18. **Maikel C. Rheinstädter**, Tilo Seydel and Tim Salditt, 2007, *"Nanosecond molecular relaxations in lipid bilayers studied by high energy resolution neutron scattering and in-situ diffraction",* Phys. Rev. E **75**, 011907.
-Selected for the January 15, 2007 issue of Virtual Journal of Biological Physics Research.
26 citations

17. E. Blackburn, A. Hiess, N. Bernhoeft, **M.C. Rheinstädter**, W. Häußler and G.H. Lander, 2006, *"Fermi surface topology and the superconducting gap function in UPd_2Al_3: A neutron spin-echo study",* Phys. Rev. Lett. **97**, 057002.
6 citations

16. **Maikel C. Rheinstädter**, Wolfgang Häußler and Tim Salditt, 2006, *"Dispersion Relation of Lipid Membrane Shape fluctuations by Neutron Spin-Echo Spectrometry",* Phys. Rev. Lett. **97**, 048103.
-Selected for the August 7, 2006 issue of Virtual Journal of Nanoscale Science & Technology.
-Selected for the August 1, 2006 issue of Virtual Journal of Biological Physics Research.
51 citations

15. M. Reehuis, C. Ulrich, P. Pattison, B. Ouladdiaf, **M. C. Rheinstädter**, M. Ohl, L. P. Regnault, M. Miyasaka, Y. Tokura and B. Keimer, 2006, *"Neutron diffraction study of YVO_3, $NdVO_3$, and $TbVO_3$",* Phys. Rev. B **73**, 094440.
67 citations

14. **Maikel C. Rheinstädter**, Tilo Seydel, Franz Demmel and Tim Salditt, 2005, *"Molecular motions in lipid bilayers studied by the neutron backscattering technique",* Phys. Rev. E **71**, 061908.
Selected for the July 4, 2005 issue of Virtual Journal of Nanoscale Science & Technology.
Selected for the July 1, 2005 issue of Virtual Journal of Biological Physics Research.
53 citations

13. M. Enderle, C. Mukherjee, B. Fåk, R.K. Kremer, J. M. Broto, H. Rosner, S.L. Drechsler, J. Richter, J. Malek, A. Prokofiev, W. Assmus, S. Pujol, J. L. Raggazzoni, H. Rakoto, **M. Rheinstädter** and H.M. Rønnow, 2005, *"Quantum helimagnetism of the frustrated spin 1/2 chain $LiCuVO_4$"*, Europhys. Lett.**70**, 237-243.

200 citations

12. D.Wallacher, **M.Rheinstaedter**, T. Hansen and K.Knorr, 2005, *"Neutron diffraction study of He solidified in a mesoporous glass"*, J. Low. Temp. Phys. **138**, 1013-1024.
22 citations

11. **Maikel C. Rheinstädter**, Mechthild Enderle, Axel Klöpperpieper and Klaus Knorr, 2005, *"Low dimensional ordering and fluctuations in methanol-β-hydroquinone-clathrate studied by X-ray and neutron diffraction"*, Phys. Rev. B **71**, 014109.

10. **Maikel C. Rheinstädter**, Garry McIntyre and Mechthild Enderle, 2004, *"Quenched chirality in $RbNiCl_3$: Linear birefringence and neutron diffraction",* Phys. Rev. B **70**, 224420.
2 citation

9. **M.C. Rheinstädter**, C. Ollinger, G. Fragneto, F. Demmel and T. Salditt, 2004, *"Collective dynamics of lipid membranes studied by inelastic neutron scattering",* Phys. Rev. Lett. **93**, 108107.
- Selected for the September 15, 2004 issue of Virtual Journal of Biological Physics Research.
76 citations

8. E. Faulhaber, O. Stockert, **M. Rheinstädter**, M. Deppe, C. Geibel, M. Loewenhaupt, F. Steglich, 2004, *"Magnetic structure of the heavy-fermion alloy $CeCu_2(Si_{0.5}Ge_{0.5})_2$",* J. Magn. Magn. Mater 272, 44-45.
5 citations

7. **Maikel C.Rheinstädter**, Heiko Rieger and Klaus Knorr, 2004, *"Aging and scaling laws in β-hydroquinone-clathrate",* Phys. Rev. B **69**, 144427.
9 citations

6. **M.C. Rheinstädter**, A.V. Kityk, H. Rieger and K. Knorr, 2003, *"Aging and memory effects in a clathrate",* Eur. Phys. J. E **12**, S47-50.
1 citation

5. **M.C. Rheinstädter**, A.V. Kityk, A. Klöpperpieper and K. Knorr, 2002, *"Dipolar ordering and relaxations in acetonitrile-β-hydroquinone clathrate",* Phys. Rev. B **66**, 064105.
4 citations

4. A.V. Kityk, **M.C. Rheinstädter**, K. Knorr and H. Rieger, 2002, *"Aging and memory effects in β-hydroquinone-clathrate",* Phys. Rev. B **65**, 144415.
22 citations

3. J. Wolf, K. Kiefer, **M.C. Rheinstädter**, K. Knorr and M. Enderle, 2001, *"Tuning anisotropy by impurities: Magnetocaloric experiments on $CsNi_{0.9}Fe_{0.1}Cl_3$",* Eur. Phys. J. B **22**, 461-471.
1 citation

2. H. Woll, **M.C. Rheinstädter**, F. Kruchten, K. Kiefer, M. Enderle, A. Klöpperpieper, J. Albers and K. Knorr, 2001, *"Dipolar ordering and glassy freezing in methanol-β-hydroquinone-clathrate",* Phys. Rev. B **63**, 224202.
10 citations

1. H. Woll, M. Enderle, A. Klöpperpieper, **M.C. Rheinstädter**, K. Kiefer, F. Kruchten and K. Knorr, 2000, *"Dipolar ordering and glassy freezing in a clathrate",* Europhys. Lett., 51 (4), pp. 407-412.
8 citations

Invited Peer-Reviewed Articles and Reviews

5. **Maikel C. Rheinstädter**, 2008, *"Collective Molecular Dynamics in Proteins and Membranes",* Biointerphases 3(2), FB83–FB90.
   8 citations
4. Giovanna Fragneto and **Maikel Rheinstädter**, 2007, *"Structural and dynamical studies from bio-mimetic systems: an overview",* Comptes Rendus Physique, Volume 8, Issues 7-8, 865-883.
   29 citations
3. **Maikel C. Rheinstädter**, Tilo Seydel, Bela Farago and Tim Salditt, 2006, *"Probing dynamics at Interfaces: Options for Neutron and X-ray Spectroscopy",* Journal of Neutron Research 14, 257-268.
   6 citations
2. **Maikel C. Rheinstädter**, Tilo Seydel, Wolfgang Häußler and Tim Salditt, 2006, *"Exploring the Collective Dynamics of Lipid Membranes with Inelastic Neutron Scattering"*, Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films -- July 2006 -- Volume 24, Issue 4, pp. 1191-1196.
   - Selected for the July 1, 2006, issue of Virtual Journal of Biological Physics Research
   14 citations
1. **M.C. Rheinstädter** and T.Salditt, 2005, *"La dynamique collective des membranes bicouches de modèle étudié par diffusion inélastique de neutrons",* J. Phys. IV France **130**, 141-151.

Book chapters

4. Richard J. Alsop and **Maikel C. Rheinstädter**, 2015, *"Lipid Rafts in Binary Lipid/Cholesterol Bilayers",* in "Membrane organization and lipid rafts in the cell and artificial membranes" edited by Angel Catalá, in press.
3. **Maikel C. Rheinstädter**, 2014, *"Basic Aspects and Applications of Lipid and Protein Dynamics",* in Liposomes, Lipid Bilayers and Model Membranes: From Basic Research to Technology, Francis and Taylor, edited by Norbert Kučerka, Georg Pabst, Mu-Ping Nieh and John Katsaras, CRC Press, March 4, 2014, 111-123, ISBN 9781466507098.
   5 citations
2. **Maikel C. Rheinstädter**, 2012, *"Lipid Membrane Dynamics",* Dynamics of Soft Matter: Neutron Scattering Applications and Techniques, Edited by VG Sakai, C Alba-Simionesco, SH Chen, Springer Series, 2012, Part 2, 263-286, ISBN 9781461407263.
   4 citation
1. Tim Salditt and **Maikel C. Rheinstädter**, 2006, *"Structure and Dynamics of Model Membrane Systems Probed by Elastic and Inelastic Neutron Scattering",* Neutron Scattering in Biology, Techniques and Applications, 503-530, Series: Biological and Medical Physics, Biomedical Engineering, Fitter, J.; Gutberlet, T.; Katsaras, J. (Eds.), Springer, 2006, XXIV, 558 p. 240 illus., Hardcover, ISBN: 3-540-29108-3
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7. Laura Toppozini, Victoria Garcia-Sakai, Robert Bewley, Robert Dalgliesh, Toby Perring and **Maikel C. Rheinstädter**, 2014, *"Lateral and Transmembrane Diffusion in Membranes: Towards a Two-Dimensional Diffusion Map",* accepted for publication in EPJ Web of Conferences.
6. E. Blackburn, A. Hiess, N. Bernhoeft, **M. C. Rheinstädter**, P. Fouquet and G. H. Lander, 2007, *"Neutron spin-echo on magnetic single crystals in the quantum limit",* Physica B 397, 95-98.
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5. **Maikel C. Rheinstädter**, Tilo Seydel, Wolfgang Häußler and Tim Salditt, 2006, *"The "neutron window" of collective excitations in lipid membranes"*, Physica B, 385, 722-724.
4. **M.C. Rheinstädter**, C. Ollinger, G. Fragneto and T. Salditt, 2004, *"Collective dynamics in phospholipid bilayers investigated by inelastic neutron scattering: Exploring the dynamics of biological membranes with neutrons",* Physica B 350, 136-139.
   20 citations
3. Wolfgang Schmidt, **Maikel C. Rheinstädter**, Stephane Raymond, Michael Ohl, 2004, *"UFO – a multi-analyser option for IN12",* Physica B 350, E849-851.
   1 citation
2. **M.C. Rheinstädter**, A.V. Kityk, A. Klöpperpieper and K. Knorr, 2002, *"Dipolar ordering and relaxations in acetonitrile-β-hydroquinone clathrate",* Proceedings of the SCNS workshop, ILL.
1. D. Havlik, **M. Steinmetz**, P. Huber, W. Schranz, M. Enderle, and K. Knorr, 1998, *"Phase diagram of the C_{60}/C_{70} system",* AIP Conference Proceedings, **442**, 237.

Not Peer Reviewed Contributions

15. **M.C. Rheinstädter**, 2011, *"Moving membranes and molecular elevators"*, Scientific Highlight, JCNS Report 2011, 47-48.
14. C.L. Armstrong, M. Trapp, J. Peters, T. Seydel, **M.C. Rheinstädter**, 2011, *"Short range ballistic motion in fluid lipid bilayers studied by quasi-elastic neutron scattering"*, Scientific Highlight, ILL Annual Report 2011, 42-43.
13. B. Brüning, **M.C. Rheinstädter**, A. Hiess, B. Weinhausen, T. Reusch, S. Aeffner and T. Salditt, 2010, *"The influence of cholesterol on the collective dynamics of the phospholipid acyl chains in model membranes"*, Scientific Highlight, ILL Annual Report 2010.
12. **Maikel C. Rheinstädter**, *"Dynamics in Soft-Matter and Biology Studied by Coherent Scattering Probes"*, http://arxiv.org/abs/0905.1636.
    1 citation
11. **M.C. Rheinstädter**, K. Wood, K. Schmalzl, D. Strauch, 2009, *"Protein-Protein Interactions in a Biological Membrane"*, Scientific Highlight, ILL Annual Report.
10. **Maikel C. Rheinstädter**, Jhuma Das, Elijah J. Flenner, **Beate Brüning**, Tilo Seydel, and Ioan Kosztin, 2008, *"Motional Coherence in Fluid Phospholipid Membranes",* Scientific Highlight, ILL Annual Report.
9. E. Blackburn, A. Hiess and P. Fouquet, N. Bernhoeft, **M.C. Rheinstädter**, W. Häußler and G.H. Lander, 2006, *"Probing magnetisation dynamics in quantum systems",* Scientific Highlight, ILL

Annual Report.

8. **Maikel C. Rheinstädter**, Tilo Seydel, Wolfgang Häußler and Tim Salditt, 2006, *"Using neutron spectroscopy to study dynamics in model membrane systems",* Scientific Highlight, ILL Annual Report.
7. **Maikel C. Rheinstädter**, Tilo Seydel and Tim Salditt, 2004, *"Probing dynamics at interfaces: Molecular motions in lipid bilayers studied by neutron backscattering",* Scientific Highlight, ILL Annual Report, p68.

6. **M.C. Rheinstädter**, C. Ollinger, G. Fragneto, F. Demmel and T. Salditt, 2004, *"Untersuchung der kollektiven Dynamik von Lipidmembranen mittels unelastischer Neutronenstreuung",* Scientific Highlight, Komitee Forschung mit Neutronen.
5. **M.C. Rheinstädter**, C. Ollinger, T. Salditt, G. Fragneto, F. Demmel, 2003, *"Collective dynamics of lipid membranes studied by inelastic neutron scattering",* Scientific Highlight, ILL Annual Report, p74.

4. **M.C. Rheinstädter**, 2002, *"Strukturelle und dielektrische Untersuchungen an β-Quinol-Clathraten",* Shaker, Berichte aus der Physik, Aachen,
ISBN 3-8322-0454-7.
3. **M.C. Rheinstädter,** 2001, *"Wing Chun, Physik und das Leben",* "Insider", Zeitschrift der European Lok Yiu Wing Chun International Martial Art Association, 7.
2. **M. Steinmetz** und K. Knorr, 1998, *"Fachbereich Physik",* Fachbereichsbroschüre des Fachbereiches Physik an der Universität des Saarlandes.
Herausgegeben vom Fachbereich Physik.
1. **M. Steinmetz, 1997,** *"Eine Apparatur zur Messung der linearen Doppelbrechung: Aufbau und Messungen an $RbNiCl_3$ und an β-Quinol-Methanol",* Diplomarbeit, Fachbereich Physik an der Fachbereich Physik, Universität des Saarlandes.

Invited Conference Presentations

38. "*Frontiers in Membrane Biophysics*", 10th European Biophysics Congress EBSA2015, July 18-22, 2015, Dresden, Germany
37. "*The origin of cellular life: laboratory studies of early molecular evolution on young planets*", Canadian Astronomical Society (CASCA) Annual Meeting 2015, May 24-27, 2015, McMaster University, Hamilton ON
36. "*Membrane Biophysics, Yeah!*", Integrated Science Symposium 2015, March 30- April 7, 2015, McMaster University, Hamilton ON
35. "*Frontiers in Membrane Biophysics*", Mechanistic Studies in Membrane Biophysics: Experiments and Theory, March 2-6, 2015, Telluride Science Research Center, Telluride CO, USA
34. "*Molecular Dynamics in Membranes: Diffusion and Transport*", QENS2014, May 11-16, 2014, Autrans, France
33. "*Frontiers in Membrane Biophysics*", McMaster Inter-disciplinary Research Exposition (MIREx), March 4-6, 2014, McMaster University, Hamilton ON
32. "*Frontiers in Membrane Biophysics*", Neutrons in Biology and Biotechnology NIBB2014, February 19-21, 2014, Institut Laue-Langevin, Grenoble, France

31. Laura Toppozini, **Maikel C. Rheinstädter**, "*Membranes: from Model to Biological*", Canadian Institute for Neutron Scattering Annual General Meeting 2013 (CINS AGM 2013), October 25-26,2013, McMaster University, Hamilton ON
30. "Frontiers in Membrane Biophysics",
    NSLS-II Early Experiment Workshop, IXS Focused Session, October 1, 2013, BNL, NY, USA.
29. "Frontiers in Membrane Biophysics",
    AMMCS2013, Simulations in Soft Matter and Molecular Bio-Physics, 26-30 August 2013, Waterloo, ON, Canada.
28. "Frontiers in Membrane Biophysics",
    Neutrons and Life Sciences, 29-31 May 2013, European Spallation, Source, Lund, Sweden.
27. "Domains in Membranes with Cholesterol",
    Chemical Biophysics Symposium, University of Toronto, April 19-21, 2013, Toronto, ON, Canada.
26. "Frontiers in Membrane Biophysics",
    Canadian Institute for Neutron Scattering (CINS) Annual General Meeting 2012, October 26 - 27, 2012, Brock University, St. Catherines, ON, Canada.
25. "Slow Dynamics in Membranes and Proteins",
    JCNS Workshop 2012: Trends and Perspectives in Neutron Scattering for Soft Matter and Biophysics, October 8-11, 2012, Tutzing, Germany.
24. "Nanobiology: Membranes and Proteins in Motion",
    8th European Biophysics Congress, August 23-27, 2011, Budapest, Hungary.
23. "Nanobiology: Membranes and Proteins in Motion (Scattering Experiments Outside of the Comfort Zone)",
    XDL2011 Workshop 6-Frontier Science with X-ray Correlation Spectroscopies using Continuous Sources, June 29-30, 2011, Cornell University, Ithaca, NY, U.S.A.
22. *"Nanobiology: Membranes and Proteins in Motion",*
    BILL2011, January 12-14, 2011, Institut Laue-Langevin, Grenoble, France.
21. *"Nanobiology: Membranes and Proteins in Motion", Canadian Association of Physicists (CAP) Congress 2010, June 7-10, 2010, University of Toronto, ON, Canada.*
20. *"Collective Molecular Dynamics in Proteins and Membranes",* Workshop on Neutron Spin Echo Spectrometry, November 4-5, 2009, Oak Ridge, TN, U.S.A..
19. *"Collective Molecular Dynamics in Proteins and Membranes",* Neutrons in Biology Meeting 2009 (NIB2009), June 22 - 24, 2009, Lund University, Sweden.
18. *"Collective Molecular Dynamics in Proteins and Membranes",* International Conference on Neutron Scattering 2009 (ICNS2009), May 3 - 7, 2009, Knoxville, TN, U.S.A.
17. *"Collective Molecular Dynamics in Proteins and Membranes",* Neutrons and X-rays meet Biology, February 25 - 27, 2009, Helmholtz Zentrum Berlin, Germany.
16. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Functionalities of Artificial and Biological Membranes",* Dynamics of Soft Matter (DSM2008), December 4 - 6, 2008, Boston, MA, U.S.A.
15. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Functionalities of Artificial and Biological Membranes",* Biological Physics at large Facilities: From Molecule to Cell, October 19 — 23, 2008, Grenoble, France.
14. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Functionalities of Artificial and Biological Membranes",* 2008 Meeting of the American Crystallographic Association, May 31 — June 5, 2008, Knoxville, TN, U.S.A.

13. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Functionalities of Artificial and Biological Membranes",* APS March Meeting 2008, March 10, 2008, New Orleans, LA, U.S.A.
12. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Functionalities of Artificial and Biological Membranes", 52nd Annual Meeting of the Biophysical Society,* February 2-6, 2008, Long Beach, CA, U.S.A.
11. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Functionalities of Artificial and Biological Membranes",* Workshop on X-ray Photon Correlation Spectroscopy and Microbeam SAXS at NSLS-II, January 10-11, 2008, Brookhaven National Laboratory, Upton, NY, U.S.A.
10. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Funtionalities of Artificial and Biological Membranes",* AVS 54th International Symposium & Exhibition, October 12-14, 2007, Seattle, WA, U.S.A.
9. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Functionalities of Artificial and Biological Membranes",* SNS-HFIR User Group SHUG2007, October 8-12, 2007, ORNL, Oak Ridge, TN, U.SA.
8. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Functionalities of Artificial and Biological Membranes",* 54th Midwestern Solid State Conference, October 6-7, 2007, Lincoln, NA, U.S.A.
7. *"Using neutron spectroscopy to study collective dynamics of biological and model membrane systems",* American Crystallographic Association 2006 Annual Meeting, July 22-27, 2006, Honolulu, Hawaii, U.S.A.
6. *"Exploring the collective dynamics of lipid membranes with inelastic neutron scattering",* International Conference on Neutron Scattering ICNS2005, November 28, 2005, Sydney, Australia
5. *"Exploring the collective dynamics of lipid membranes with inelastic neutron scattering",* Symposium on Biomaterials and Neutrons, American Vacuum Society Meeting, October 31, 2005, Boston, MA, U.S.A.
4. *"Collective long wavelength dynamics of lipid membranes studied by quasielastic neutron reflectivity on spin echo spectrometers",* Probing complex fluid membranes and films with neutron spin echo, International Workshop, August 17, 2005, Indiana University, Bloomington, IN, U.S.A.
3. *"Collective dynamics of lipid membranes studied by inelastic neutron scattering",* Deutsche Neutronenstreutagung, September 2, 2004, Dresden, Germany
2. *"Collective dynamics of lipid membranes studied by inelastic neutron scattering",* Probing Dynamics at Interfaces, International Workshop, July 5, 2004, Paul-Scherrer Institute (PSI), Villingen, Switzerland
1. *"Collective dynamics of lipid membranes studied by inelastic neutron scattering",* Journeés de la Diffusion Neutronique (JDN12), May 28, 2004, Praz sur Arly, France

Invited Colloquia and Seminars

28. "*Frontiers in Membrane Biophysics*", SickKids The Hospital for Sick Children, January 25, 2016,Toronto ON, Canada
27. "*Biomaterials: The Ultimate Playground for Soft Matter Physicists*", January 22, 2016, Max-Planck Institute for Dynamics and Self-Aggregation, Göttingen, Germany

26. "*Frontiers in Membrane Biophysics*", SFB 803 und SFB 755 Colloquium, January 21, 2016, University of Göttingen, Göttingen, Germany
25. "*Frontiers in Membrane Biophysics*", Condensed Matter & Nanophysics Seminar, Department of Physics and Astronomy, University of Delaware, February 17, 2015, Newark, DE, USA
24. "*Frontiers in Membrane Biophysics*", Colloquium, Department of Chemical and Physical Sciences, University of Toronto-Mississauga., November 11, 2014, Mississauga, ON
23. "*Frontiers in Membrane Biophysics*", Waterloo Undergraduate Seminar, Department of Physics, University of Waterloo, July 25, 2014, Waterloo, ON
22. *"Molecular Evolution", Origins Institute, McMaster University, November 25, 2013, Hamilton, ON, Canada.*
21. *"Frontiers in Membrane Biophysics", Department of Physics, Queen's University, January 31, 2013, Kingston, ON, Canada.*
20. *"Nanobiology: Membranes and Proteins in Motion", Department of Physics, University of Buffalo, April 26, 2012, Buffalo, NY, U.S.A.*
19. *"Nanobiology: Membranes and Proteins in Motion", Department of Physics and Astronomy, University of Waterloo, January 12, 2012, Waterloo, ON, Canada.*
18. *"Nanobiology: Membranes and Proteins in Motion", Department of Physics, McGill University, September 23, 2011, Montreal, QC, Canada.*
17. *"Nanobiology: Membranes and Proteins in Motion", Department of Biochemistry, McMaster University, September 20, 2011, Hamilton, ON, Canada.*
16. *"Nanobiology: Membranes and Proteins in Motion", Materials Science Division, Argonne National Laboratory, October 7, 2010, Argonne, IL, U.S.A.*
15. *"Nanobiology: Membranes and Proteins in Motion", Department of Physics, University of Illinois at Chicago, October 6, 2010, Chicago, IL, U.S.A..*
14. *"Nanobiology: Membranes and Proteins in Motion", Brockhouse Institute for Materials Research, McMaster University, November 9, 2009, McMaster University, Hamilton, ON, Canada.*
13. *"Collective Molecular Dynamics in Proteins and Membranes",* Department of Physics, University of Guelph, September 15, 2009, Guelph, ON, Canada.
12. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Functionalities of Artificial and Biological Membranes",* Department of Physics, Missouri University of Science and Technology, April 24, 2008, Rolla, MO, U.S.A.
11. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Functionalities of Artificial and Biological Membranes",* Department of Physics and Astronomy, McMaster University, March 31, 2008, Hamilton, ON, Canada.
10. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Functionalities of Artificial and Biological Membranes",* Condensed Matter Physics Seminar, Indiana University, February 29, 2008, Bloomington, IN, U.S.A.
9. *"The Impact of Collective Molecular Dynamics on Physiological and Biological Functionalities of Artificial and Biological Membranes",* January 30, 2008, University of California Irvine, Irvine CA, U.S.A.
8. *"Using neutron spectroscopy to study collective dynamics of biological and model membrane systems",* Canadian Neutron Beam Centre NRC-CNRC, Chalk River, August 1, 2007, Chalk River, ON, Canada

7. *"Using neutron spectroscopy to study collective dynamics of biological and model membrane systems",* Physics Seminar, Department of Physics and Astronomy, Rice University, April 27, 2007, Houston, TX, U.S.A.
6. *"Using neutron spectroscopy to study collective dynamics of biological and model membrane systems",* Physics Seminar, Department of Physics, University of Missouri-Kansas City, January 26, 2007, Kansas City, MO, U.S.A.
5. *"Using neutron spectroscopy to study collective dynamics of biological and model membrane systems",* Biological Physics Seminar, Department of Physics and Astronomy, University of Missouri-Columbia, January 24, 2007, Columbia, MO, U.S.A.
4. *"Using neutron spectroscopy to study collective dynamics of biological and model membrane systems",* NIST Center for Neutron Research Seminar, November 17, 2006, Gaithersburg, MD, U.S.A.
3. *"Using neutron spectroscopy to study collective dynamics of biological and model membrane systems",* Biology and Soft Matter Collegium, Hahn-Meitner Institut, April 5,2006, Berlin, Germany
2. *"Exploring the collective dynamics of lipid membranes with inelastic neutron scattering",* Oak Ridge National Laboratory, Spallation Neutron Source (SNS), November 8, 2005, Oak Ridge, TN, U.S.A.
1. *"Collective dynamics of lipid membranes studied by inelastic neutron scattering",* Physikalisches Kolloquium,FRM-II, Technische Universität München, May 30, 2005, Technische Universität München, Germany

Contributed Oral Conference Presentations

38. Richard J. Alsop and **Maikel C Rheinstädter**, "*Breaking the Wall of Developing Anti-Alzherimer's Drugs"*, Falling Walls Lab 2015, November 8, 2015, Berlin, Germany.
37. Jennifer Tang and **Maikel C Rheinstädter**, "*Effects of Strong Static Magnetic Fields on Gel Phase of Membranes"*, Canadian Undergraduate Physics Conference CUPC, October 22-25, 2015, Trent University, Peterborough ON, Canada.
36. **Maikel C Rheinstädter**, "*Frontiers in Membrane Biophysics"*, Canadian Association of Physicists (CAP) Congress 2015, June 14-19, 2015, University of Alberta-Edmonton, Edmonton AB, Canada.
35. Jennifer Tang and **Maikel C Rheinstädter**, "*The Formation of Alzheimer's Plaques in Synthetic Membranes"*, Canadian Association of Physicists (CAP) Congress 2015, June 14-19, 2015, University of Alberta-Edmonton, Edmonton AB, Canada.
34. Richard J. Alsop and **Maikel C Rheinstädter**, "*Aspirin Inhibits the Formation of Cholesterol Rafts in Fluid Lipid Membranes"*, Chemical Biophysics Symposium 2015, April 10-12, 2015, University of Toronto, Toronto ON, Canada.
33. Jennifer Tang and **Maikel C Rheinstädter**, "*The Formation of Alzheimer's Plaques in Synthetic Membranes"*, Canadian Conference for Undergraduate Women in Physics (CCUWiP) 2015, January 9-11, 2015, Université Laval, Quebec QC, Canada.

32. Jennifer Tang and **Maikel C Rheinstädter**, "*The Formation of Alzheimer's Plaques in Synthetic Membranes"*, Canadian Undergraduate Physics Conference (CUPC) 2014, October 23-26, 2014, Queen's University, Kingston ON, Canada.
31. Richard J. Alsop and **Maikel C Rheinstädter**, "*Breaking the Wall of Unofreseen Drug Side-Effects"*, Falling Walls Lab 2014 McMaster, September 17, 2014, McMaster University, Hamilton ON, Canada.
30. Hannah Dies and **Maikel C Rheinstädter**, "*The Interaction of Amyloid-β with Multicomponent Lipid Membranes"*, Canadian Association of Physicists (CAP) Congress 2014, June 16-20, 2014, Laurentian University, Sudbury ON, Canada.
29. Alina Barnett and **Maikel C Rheinstädter**, "*A series of fun and engaging first year physics videos"*, Canadian Association of Physicists (CAP) Congress 2014, June 16-20, 2014, Laurentian University, Sudbury ON, Canada.
28. Fei-Chi Yang and **Maikel C Rheinstädter**, "*Hierarchical, Self-Similar Structure in Native Squid Pen"*, Canadian Association of Physicists (CAP) Congress 2014, June 16-20, 2014, Laurentian University, Sudbury ON, Canada.
27. Richard J. Alsop and **Maikel C Rheinstädter**, "*Aspirin Reorganizes the Lipid Membrane"*, Canadian Association of Physicists (CAP) Congress 2014, June 16-20, 2014, Laurentian University, Sudbury ON, Canada.
26. Laura Toppozini and **Maikel C Rheinstädter**, "*Cholesterol Structure in Lipid Rafts"*, Canadian Association of Physicists (CAP) Congress 2014, June 16-20, 2014, Laurentian University, ON, Canada.
25. Laura Toppozini and **Maikel C Rheinstädter**, *"Two Dimensional Diffusion of Water in Lipid Membranes"*, American Conference on Neutron Scattering (ACNS) 2014, June 1-5, 2014, Knoxville, TN, U.S.A.
24. Richard J. Alsop and **Maikel C Rheinstädter**, *"Aspirin Reorganizes the Lipid Membrane"*, American Conference on Neutron Scattering (ACNS) 2014, June 1-5, 2014, Knoxville, TN, U.S.A.
23. Laura Toppozini and **Maikel C Rheinstädter**, *"Cholesterol Structure in Lipid Rafts"*, Chemical Biophysics Symposium 2014, May 2-4, 2014, University of Toronto, Toronto, ON, Canada
22. Richard J. Alsop, **Maikel C. Rheinstädter**, "Aspirin Increases the Solubility of Cholesterol in DMPC Membranes", March Meeting of the American Physical Society, March 3-7, 2014, Denver CO, USA
21. Fei-Chi Yang, **Maikel C. Rheinstädter**, "Hierarchical, Self-Similar Structure in Native Squid Pen", March Meeting of the American Physical Society, March 3-7, 2014, Denver CO, USA
20. Hannah Dies, **Maikel C. Rheinstädter**, "The Interaction of Amyloid-β with Multicomponent Lipid Membranes", Canadian Undergraduate Physics Conference CUPC 2013, October 17-20,2013, McMaster University, Hamilton ON
19. Laura Toppozini and **Maikel C Rheinstädter**, "Nucleotide Confinement by Lipid Membranes: Insights for Origins of Life", AMMCS2013, Simulations in Soft Matter and Molecular Bio-Physics, 26-30 August 2013, Waterloo, ON, Canada.
18. Clare Armstrong and **Maikel C Rheinstädter**, *"Measurement of Domains in Biological Membranes"*, JCNS Workshop 2012: Trends and Perspectives in Neutron Scattering for Soft Matter and Biophysics, October 8-11, 2012, Tutzing, Germany.
17. Clare Armstrong and **Maikel C Rheinstädter**, *"Measurement of Transient Domains in Biological Membranes Using Coherence Length Dependent Neutron Diffraction"*, American

Conference on Neutron Scattering (ACNS) 2012, June 24 - June 28, 2012, Washington DC, U.S.A.

16. Matthew Barrett and **Maikel C Rheinstädter**, *"Chain formation in a magnetic fluid under the influence of strong external magnetic fields studied by small angle neutron scattering"*, American Conference on Neutron Scattering (ACNS) 2012, June 24 - June 28, 2012, Washington DC, U.S.A.
15. Clare Armstrong and **Maikel C Rheinstädter**, *"Measurement of Domains in Biological Membranes"*, Chemical Biophysics Symposium 2012, April 13-15, 2012, University of Toronto, Toronto, ON, Canada
14. Matthew Barrett and **Maikel C Rheinstädter**, *"Interaction of Aspirin with Lipid Membranes"*, Chemical Biophysics Symposium 2012, April 13-15, 2012, University of Toronto, Toronto, ON, Canada
13. Clare Armstrong and **Maikel C Rheinstädter**, *"Research in the Laboratory for Membrane and Protein Dynamics"*, SoftMatter@MAC 2011, June 10-11, 2011, The Westwind Inn, Buckhorn, ON, Canada
12. Martin Kaye and **Maikel C Rheinstädter**, *"Membranes Under the Influence of Ethanol and Magnets"*, SoftMatter@MAC 2011, June 10-11, 2011, The Westwind Inn, Buckhorn, ON, Canada
11. Matthew Barrett and **Maikel C Rheinstädter** , *"Structure and Dynamics of Brain Membranes"*, SoftMatter@MAC 2011, June 10-11, 2011, The Westwind Inn, Buckhorn, ON, Canada
10. Matthew Barrett and **Maikel C Rheinstädter**, *"Chain formation in a magnetic fluid under the influence of strong magnetic fields"*, APS March Meeting 2011, March 21–25, 2011, Dallas, TX, U.S.A.
9. Clare Armstrong and **Maikel C Rheinstädter**, *"Diffusion in Single Supported Bilayers"*, APS March Meeting 2011, March 21–25, 2011, Dallas, TX, U.S.A.
8. Martin Kaye and **Maikel C Rheinstädter**, *"Ethanol enhances collective dynamics of lipid membranes"*, APS March Meeting 2011, March 21–25, 2011, Dallas, TX, U.S.A.
7. Martin Kaye and **Maikel C Rheinstädter**, *"Tuning the microscopic and mesoscopic properties of lipid membranes"*, American Conference on Neutron Scattering (ACNS) 2010, June 26 - 30, 2010, Ottawa, ON
6. Clare Armstrong and **Maikel C Rheinstädter**, *"Protein-Protein Interactions in Membranes"*, American Conference on Neutron Scattering (ACNS) 2010, June 26 - 30, 2010, Ottawa, ON
5. Martin Kaye and **Maikel C Rheinstädter**, *"Tuning the microscopic and mesoscopic properties of lipid membranes"*, Canadian Association of Physicists (CAP) Congress 2010, June 7-10, 2010, University of Toronto, ON, Canada.
4. Clare Armstrong and **Maikel C Rheinstädter**, *"Protein-Protein Interactions in Membranes"*, Canadian Association of Physicists (CAP) Congress 2010, June 7-10, 2010, University of Toronto, ON, Canada.
3. Clare Armstrong and **Maikel C Rheinstädter**, *"Protein-protein interactions in membranes"*, SoftMatter@MAC 2009, November 27-28, 2009, The Westwind Inn, Buckhorn, ON, Canada
2. Beate Brüning, **Maikel Rheinstädter**, Tim Salditt, *"Influence of Cholesterol on the collective dynamics of the phospholipid acyl chains in model membranes"*, Neutrons in Biology 2009, 22-24 June, 2009, Lund, Sweden
1. Kevin Johnson and **Maikel C Rheinstädter**, *"Dynamics of Multi-Component Model Membranes Studied via Light and X-Ray Scattering"*, APS March Meeting 2008, March 10–14, 2008, New Orleans, LA, U.S.A.

Poster Conference Presentations

33. Jennifer Tang and **Maikel C Rheinstädter**, "*Effects of Strong Static Magnetic Fields on the Gel Phase of Membranes"*, NSERC-USRA Poster Session 2015, November 12, 2015, McMaster University, Hamilton ON, Canada.
32. Laura Toppozini and **Maikel C Rheinstädter**, "*Anomalous and Anisotropic Nanoscale Diffusion of Hydration Water Molecules in Fluid Lipid Bilayers",* 10th European Biophysics Congress EBSA2015, July 18-22, 2015, Dresden, Germany.
31. Richard Alsop and **Maikel C Rheinstädter**, "*Non- Specific Drug Interactions Mediated by The Lipid Membrane"*, 10th European Biophysics Congress EBSA2015, July 18-22, 2015, Dresden, Germany
30. Yuchen Zhang and **Maikel C Rheinstädter**, "*X-ray Study of Human Hair Structure"*, Chemical Biophysics Symposium 2015, April 10-12, 2015, University of Toronto, Toronto ON, Canada.
29. Asfia Soomro and **Maikel C Rheinstädter**, "*Hair as a Diagnostic Tool"*, Chemical Biophysics Symposium 2015, April 10-12, 2015, University of Toronto, Toronto ON, Canada.
28. Jennifer Tang and **Maikel C Rheinstädter**, "*The Formation of Alzheimer's Plaques in Synthetic Membranes"*, Chemical Biophysics Symposium 2015, April 10-12, 2015, University of Toronto, Toronto ON, Canada.
27. Laura Toppozini and **Maikel C Rheinstädter**, "*A 2-dimensional Diffusion Map of Membrane Hydration Water"*, Chemical Biophysics Symposium 2015, April 10-12, 2015, University of Toronto, Toronto ON, Canada.
26. Adree Khondker and **Maikel C Rheinstädter**, "*Quantifying Cortisone Interactions with Lipid Membranes through X-Ray Diffraction"*, BASEF 2015, March 31, 2015, Mohawk College, Hamilton ON, Canada.
25. Mindy Chapman and **Maikel C Rheinstädter**, "*Formation of RNA from nucleotides in different environments"*, Canadian Conference for Undergraduate Women in Physics (CCUWiP) 2015, January 9-11, 2015, Université Laval, Quebec QC, Canada.
24. Richard J. Alsop and **Maikel C Rheinstädter**, *"The Interaction of Common Drugs with Lipid Membranes"*, Fourth Annual Niels Bohr International Academy Workshop-School on ESS Science, November 10-14, 2014, Niels Bohr Institute, Copenhagen, Denmark
23. Jennifer Tang and **Maikel C Rheinstädter**, "*The Formation of Alzheimer's Plaques in Synthetic Membranes"*, NSERC-USRA Poster Session 2014, November 6, 2014, McMaster University, Hamilton ON, Canada.
22. Fei-Chi Yang and **Maikel C Rheinstädter**, *"Hierarchical, Self-Similar Structure in Native Squid Pen"*, American Conference on Neutron Scattering (ACNS) 2014, June 1-5, 2014, Knoxville, TN, U.S.A.
21. Hannah Dies and **Maikel C Rheinstädter**, *"Age-Related Effects on the Interaction between Amyloid-Beta Peptides and Anionic Lipid Membranes"*, Chemical Biophysics Symposium 2014, May 2-4, 2014, University of Toronto, Toronto, ON, Canada
20. Richard J. Alsop and **Maikel C Rheinstädter**, *"Aspirin Increases the Solubility of Cholesterol When Incorporated in Lipid Membranes"*, Chemical Biophysics Symposium 2014, May 2-4, 2014, University of Toronto, Toronto, ON, Canada
19. Fei-Chi Yang and **Maikel C Rheinstädter**, *"Hierarchical, Self-Similar Structure in Native Squid Pen"*, Chemical Biophysics Symposium 2014, May 2-4, 2014, University of Toronto, Toronto, ON, Canada

18. Laura Toppozini, **Maikel C. Rheinstädter**, "Lateral and transmembrane diffusion: A 2D membrane diffusion map", QENS2014, May 11-16, 2014, Autrans, France
17. Hannah Dies, **Maikel C. Rheinstädter**, "The Interaction of Amyloid-β with Lipid Membranes Containing Cholesterol and Melatonin - Age and Alzheimer's Disease", QENS2014, May 11-16, 2014, Autrans, France
16. Laura Toppozini, **Maikel C. Rheinstädter**, "The Structure of Cholesterol in Lipid Rafts: Experiment and Simulation", Neutrons in Biology and Biotechnology NIBB2014, February 19-21, 2014, Institut Laue-Langevin, Grenoble, France
15. Laura Toppozini, **Maikel C. Rheinstädter**, "From nucleotides to RNA: searching for the origins of life", 2014 Whidden Lectures, 21-22 January, 2014, McMaster University, Hamilton ON
14. Hannah Dies, Laura Toppozini, **Maikel C. Rheinstädter**, "The Interaction of Amyloid-β with Lipid Membranes Containing Cholesterol and Melatonin, Age and Alzheimer's Disease", Canadian Conference for Undergraduate Women in Physics, January 10-12, 2014, McGill University, Montreal QC
13. Richard J. Alsop, **Maikel C. Rheinstädter**, "*Aspirin Increases the Solubility of Cholesterol When Incorporated in Lipid Membranes*", Canadian Institute for Neutron Scattering Annual General Meeting 2013 (CINS AGM 2013), October 25-26,2013, McMaster University, Hamilton ON
12. Fei-Chi Yang, **Maikel C. Rheinstädter**, "*Structure of Native Squid Pen by X-Ray Diffraction*", Canadian Institute for Neutron Scattering Annual General Meeting 2013 (CINS AGM 2013), October 25-26,2013, McMaster University, Hamilton ON
11. Hannah Dies, **Maikel C. Rheinstädter**, "*X-Ray Diffraction Techniques for Studying the Properties of Biological Membranes*", Canadian Institute for Neutron Scattering Annual General Meeting 2013 (CINS AGM 2013), October 25-26,2013, McMaster University, Hamilton ON
10. Laura Toppozini, Clare Armstrong, Victoria Garcia Sakai, Hirsh Nanda, **Maikel C Rheinstädter**, *"Inebriated: Alcohol and Lipid Membranes"*, International Conference on Neutron Scattering ICNS 2013, July 8-12, 2013, Edinburgh, UK.
9. Laura Toppozini, *Hannah Dies, David W. Deamer*, and **Maikel C Rheinstädter**, *"Mononucleotides form ordered arrays in multilamellar lipid matrices: Implications for the origin of life"*, Chemical Biophysics Symposium 2013, University of Toronto, April 19-21, 2013, Toronto, ON, Canada.
8. Fei-Chi Yang, Robert Peters, and **Maikel C Rheinstädter**, *"Structure of Native Squid Pen by X-Ray Diffraction"*, Chemical Biophysics Symposium 2013, University of Toronto, April 19-21, 2013, Toronto, ON, Canada.
7. Laura Toppozini, *Clare Armstrong, Matthew Barrett, Songbo Zheng, Lindy Luo, Hirsh Nanda, Victoria Garcia Sakai*, and **Maikel C Rheinstädter**, *"Inebriated: Alcohol and Lipid Membranes"*, Canadian Institute for Neutron Scattering (CINS) Annual General Meeting 2012, October 26 - 27, 2012, Brock University, St. Catherines, ON, Canada.
6. Clare Armstrong, Drew Marquardt, Laura Toppozini, Hannah Dies, Norbert Kučerka, John Katsaras, and **Maikel C Rheinstädter**, *"Measurement of Domains in Biological Membranes Using Coherence Length Dependent Neutron Diffraction"*, Canadian Institute for Neutron Scattering (CINS) Annual General Meeting 2012, October 26 - 27, 2012, Brock University, St. Catherines, ON, Canada.
5. Fei-Chi Yang, Clare Armstrong, Atsuko Negishi, Nicole Pinot, Douglas Fudge and **Maikel C Rheinstädter**, *"Molecular Order in Native and Reconstituted Hagfish fibres"*, Canadian

Institute for Neutron Scattering (CINS) Annual General Meeting 2012, October 26 - 27, 2012, Brock University, St. Catherines, ON, Canada.

4. Hannah Dies, and **Maikel C Rheinstädter**, *"X-Ray Diffraction Techniques for Studying the Properties of Biological Membranes"*, Canadian Undergraduate Physics Conference (CUPC) 2012, October 25-29, 2012, Vancouver, B.C. Canada.
3. Laura Toppozini, and **Maikel C Rheinstädter**, *"Inebriated: Alcohol and Lipid Membranes"*, American Conference on Neutron Scattering (ACNS) 2012, June 24 - June 28, 2012, Washington DC, U.S.A.
2. Laura Toppozini, David Deamer and **Maikel C Rheinstädter**, *"Making RNA: Searching for the Origin of Life"*, Chemical Biophysics Symposium 2012, April 13-15, 2012, University of Toronto, Toronto, ON, Canada.
1. Richard J. Alsop and **Maikel C Rheinstädter**, *"A Molecular Model for the Low-Dose-Aspirin-Therapy"*, Chemical Biophysics Symposium 2012, April 13-15, 2012, University of Toronto, Toronto, ON, Canada.

Public Outreach

- "Isotope shortage hurts Mac research", April 16, 2010, The Hamilton Spectator, Interview
- *"Biophysics and Biology on a Molecular Scale",* Saturday Morning Science, University of Missouri-Columbia, February 3, 2007, Columbia, MO, U.S.A.
- *"Biophysics Video Lecture Series on YouTube"*, https://www.youtube.com/user/McMasterBiophysics