

Refereed Publications

- *Measurements of diffusion coefficients for rubidium–inert gas mixtures using coherent scattering from optically pumped population gratings* A. Pouliot, E. Chomen Ramos, G. Carlse, T. Vacheresse, J. Randhawa, **L. Marmet**, A. Kumarakrishnan, J. Klos, E. Tiesinga, paper submitted to Physical Review A (2025)
- *Diffusive interactions between photons and electrons, an application to cosmology*, **L. Marmet**, accepted for publication in the Proceedings of the 17th Marcel Grossmann Meeting (2025)
- *Technique for Rapid Mass Determination of Airborne Microparticles Based on Release and Recapture from an Optical Dipole Force Trap*, G. Carlse, K.B. Borsos, H.C. Beica, T. Vacheresse, A. Pouliot, J. Perez-Garcia, A. Vorozcovs, B. Barron, S. Jackson, **L. Marmet**, A. Kumarakrishnan, Physical Review Applied **14(2)**, 024017 (2020)
- *Development of a Technique for Precise Determination of Atomic Lifetimes Based on Photon Echoes*, H.C. Beica, A. Pouliot, P. Dowling, A. Carew, T. Vacheresse, G. Carlse, **L. Marmet**, A. Kumarakrishnan, Physical Review A **101(3)**, 033408 (2020)
- *Mapping the magnetic field vector in a fountain clock*, M. Gertsvolf, **L. Marmet**, Review of Scientific Instruments **82(12)** 123115 (2011)
- *Cavity-enhanced optical frequency doubler based on transmission-mode Hänsch-Couillaud locking*, M. Vainio, J.E. Bernard, **L. Marmet**, Applied Physics B**104**: Lasers and Optics (4) 897 (2011)
- *A narrow linewidth and frequency-stable probe laser source for the $^{88}\text{Sr}^+$ single ion optical frequency standard*, P. Dubé, A.A. Madej, J.E. Bernard, **L. Marmet**, A.D. Shiner, Applied Physics B**95**: Lasers and Optics (1) 43-54 (2009)
- *Laser cooling with a modified optical shaker*, **L. Marmet**, Physical Review A**79(1)** 013412 (2009) [arXiv:0901.1671](https://arxiv.org/abs/0901.1671)
- *Quantum physics exploring gravity in the outer solar system: the SAGAS project*, P. Wolf, Ch.J. Bordé, A. Clairon, L. Duchayne, A. Landragin, P. Lemonde, G. Santarelli, W. Ertmer, E. Rasel, F.S. Cataliotti, M. Inguscio, G.M. Tino, P. Gill, H. Klein, S. Reynaud, C. Salomon, E. Peik, O. Bertolami, P. Gil, J. Paramos, C. Jentsch, U. Johann, A. Rathke, P. Bouyer, L. Cacciapuoti, D. Izzo, P. De Natale, B. Christophe, P. Touboul, S.G. Turyshchev, J.D. Anderson, M.E. Tobar, F. Schmidt-Kaler, J. Vigué, A. Madej, **L. Marmet**, M.-C. Angonin, P. Delva, P. Tournenc, G. Metris, H. Müller, R. Walsworth, Z.H. Lu, L. Wang, K. Bongs, A. Toncelli, M. Tonelli, H. Dittus, C. Lämmerzahl, G. Galzerano, P. Laporta, J. Laskar, A. Fienga, F. Roques, K. Sengstock, Experimental Astronomy **23(2)** 651 (2008) [arXiv:0711.0304](https://arxiv.org/abs/0711.0304)
- *Optical Forces as a Redshift Mechanism: The “Spectral Transfer Redshift”*, **L. Marmet**, 2nd Crisis in Cosmology Conference, CCC-2, Astronomical Society of the Pacific Conference Series **413**, 268 (2008)
- *Laser-Cooled Atoms and Ions in Precision Time and Frequency Standards*, J.E. Bernard, **L. Marmet**, A.A. Madej, P. Dubé, Physics in Canada **62(2)** 67 (2006)
- *Electric quadrupole shift cancellation in single-ion optical frequency standards*, P. Dubé, A.A. Madej, J.E. Bernard, **L. Marmet**, J.-S. Boulanger, S. Cundy, Physical Review Letters **95(3)**, 033001 (2005)
- *Absolute frequency of the $^{88}\text{Sr}^+$ $5s\ ^2S_{1/2} - 4d\ ^2D_{5/2}$ reference transition at 445 THz and evaluation of systematic shifts*, A.A. Madej, J.E. Bernard, P. Dubé, **L. Marmet**, R.S. Windeler, Physical Review A **70(1)**, 012507 (2004)
- *Absolute Frequency Measurement of a CO_2/OsO_4 stabilised Laser at 28.8 THz*, K.J. Siemsen, J.E. Bernard, A.A. Madej, **L. Marmet**, Applied Physics B: Lasers and Optics **72(5)** 567 (2001)
- *Absolute frequency measurement of the HeNe/ I_2 standard at 633 nm*, J.E. Bernard, A.A. Madej, K.J. Siemsen, **L. Marmet**, Optics Communications **187(1/3)** 211 (2001)

- *Accuracy Comparison of Absolute Optical Frequency Measurement between Harmonic-Generation Synthesis and a Frequency-Division Femtosecond Comb*, J. Ye, T.H. Yoon, J.L. Hall, A.A. Madej, J.E. Bernard, K.J. Siemsen, **L. Marmet**, J.-M. Chartier, A. Chartier, *Physical Review Letters* **85**(18) 3797 (2000)
- *Optical Ramsey spectroscopy and coherence measurements of the clock transition in a single trapped Sr ion*, **L. Marmet**, A.A. Madej, *Canadian Journal of Physics, Boris Stoicheff Festschrift Issue* **78**(5/6) 495 (2000)
- *Effect of counterintuitive time delays in nonlinear mixing*, R.I. Thompson, **L. Marmet**, B.P. Stoicheff, *Optics Letters* **25**(2), 120 (2000)
- *Absolute frequency measurement of a laser at 1556 nm locked to the $^5S_{1/2}$ - $^5D_{5/2}$ two-photon transition in ^{87}Rb* , J.E. Bernard, A.A. Madej, K.J. Siemsen, **L. Marmet**, C. Latrasse, M. Poulin, D. Touahri, M. Allard, M. Têtu, *Optics Communications* **173**(1/6) 357 (2000)
- *Absolute Frequency Measurement of an HDO Absorption Line near 1480 cm^{-1}* , K.J. Siemsen, J.E. Bernard, A.A. Madej, **L. Marmet**, *Journal of Molecular Spectroscopy* **199**(1) 144 (2000)
- *Single, trapped ions for absolute optical frequency measurements*, A.A. Madej, J.E. Bernard, **L. Marmet**, K.J. Siemsen, *LEOS Newsletter, IEEE Lasers and Electro-Optics Society*, **13**(5) 3 (1999)
- *Linking the 474 THz HeNe/I₂ standard to the 445 THz single Sr⁺ trapped ion standard: heterodyne frequency measurements using an OsO₄ stabilized 29 THz laser system*, A.A. Madej, K.J. Siemsen, **L. Marmet**, J.E. Bernard, O. Acef, *IEEE Transactions on Instrumentation and Measurement* **48**(2) 553 (1999)
- *Cs-based Frequency Measurement of a Single, Trapped Ion Transition in the Visible Region of the Spectrum*, J.E. Bernard, A.A. Madej, **L. Marmet**, B.G. Whitford, K.J. Siemsen, S. Cundy, *Physical Review Letters* **82**(16) 3228 (1999)
- *Phase-locked optical divide-by-3 system for visible radiation*, J.E. Bernard, B.G. Whitford, **L. Marmet**, *Optics Letters* **24**(2) 98 (1999)
- *Rb Atomic Absorption Line Reference for Single Sr⁺ Laser Cooling Systems*, A.A. Madej, **L. Marmet**, J.E. Bernard, *Applied Physics B: Lasers and Optics* **67**(2) 229 (1998)
- *A laser frequency lock referenced to a single trapped ion*, J.E. Bernard, **L. Marmet**, A.A. Madej, *Optics Communications* **150**(1/6) 170 (1998)
- *Precision frequency measurement of the $^2S_{1/2}$ - $^2D_{5/2}$ transition of Sr⁺ with a 674-nm diode laser locked to an ultrastable cavity*, **L. Marmet**, A.A. Madej, K.J. Siemsen, J.E. Bernard, B.G. Whitford, *IEEE Transactions on Instrumentation and Measurement* **46**(2) 169 (1997)
- *A multiple frequency heterodyne technique for the measurement of long gauges*, K.J. Siemsen, R.F. Siemsen, J.E. Decker, **L. Marmet**, J.R. Pekelsky, *Metrologia* **33**(6) 555 (1996)
- *Rubidium Rydberg atoms in strong static fields*, G. Raithel, H. Held, **L. Marmet**, H. Walther, *Journal of Physics B: Atomic, Molecular and Optical Physics* **27**(13) 2849 (1994)
- *Observation of Quasi-Landau Wave Packets*, **L. Marmet**, H. Held, G. Raithel, J.A. Yeazell, H. Walther, *Physical Review Letters* **72**(24) 3779 (1994)
- *Observation of wave packet motion along quasi-Landau orbits*, J.A. Yeazell, G. Raithel, **L. Marmet**, H. Held, H. Walther, *Physical Review Letters* **70**(19) 2884 (1993)
- *Second-harmonic generation in atomic hydrogen induced by a charge-separation field*, **L. Marmet**, K. Hakuta, B.P. Stoicheff, *Journal of the Optical Society of America B* **9**(7) 1038 (1992)
- *Nonlinear optical generation with reduced absorption using electric-field coupling in atomic hydrogen*, K. Hakuta, **L. Marmet**, B.P. Stoicheff, *Physical Review A* **45**(7) 5152 (1992)
- *Second Harmonic Generation in Atomic Hydrogen With and Without an Electric Field*, **L. Marmet**, Ph. D. Thesis, University of Toronto, 114 pages, Canada (1991)
- *Second-harmonic generation at Lyman-alpha in atomic hydrogen*, **L. Marmet**, K. Hakuta, B.P. Stoicheff, *Optics Letters* **16**(4) 261 (1991)
- *Electric-field-induced second-harmonic generation with reduced absorption in atomic hydrogen*, K. Hakuta, **L. Marmet**, B.P. Stoicheff, *Physical Review Letters* **66**(5) 596 (1991)
- *Binomial smoothing filter: A way to avoid some pitfalls of least square polynomial smoothing*, P. Marchand, **L. Marmet**, *Review of Scientific Instruments* **54**(8) 1034 (1983)

Book chapter/Invited Paper

- *Alternative ideas in cosmology*, M. López-Corredoira, **L. Marmet**, International Journal of Modern Physics D, Vol. 31, No. 8, doi: [10.1142/S0218271822300142](https://doi.org/10.1142/S0218271822300142), Mar 18 (2022)
- *On the road to ultra-high resolution and ultra-accurate spectroscopy at the National Research Council of Canada: Following the path of John L. Hall*, A.A. Madej, P. Dubé, **L. Marmet**, J.E. Bernard, K.J. Siemsen, Proceedings of the John Hall Symposium: in honor of John Hall on the Occasion of His 70th Birthday (J.C. Bergquist et al. eds.) ISBN 981-256-745-3, World Scientific, Singapore, pp. 40–49 (2006)

Patent

Frequency Stabilization of an Atomic Clock Against Variations of the C-Field, United States. [US9048852 B2](https://patents.google.com/patent/US9048852B2). 2012-2-6 Patent Status: Granted/Issued, expired 2019. Year Issued: 2015. Inventor: L. Marmet (2012)

Conference presentations and Proceedings - presenter

- *A Diffusive Light-Electron Interaction: Spectral Redshift Effects in Astrophysics*, L. Marmet, [Challenges of Modern Cosmology 2](#), poster presentation (Oct 17 – 18, 2024)
- *Diffusive interactions between photons and electrons, an application to cosmology*, L. Marmet, [17th Marcel Grossmann Meeting](#), invited talk (July 7 – 12, 2024)
- *Reducing the Uncertainty on the Dispersion Measure of FRB hosts*, L. Marmet, [FRB 2021 online Conference](#), poster & lightning talk ID PL04 (July 28th – August 5th, 2021)
- *Distributed cavity phase calculation for a rectangular Ramsey cavity in NRC-FCs1*, L. Marmet, N. Shtin, P. Dubé, J.M. López, Proceedings of International Frequency Control Symposium and European Frequency and Time Forum IFCS-EFTF, ed. A. Partridge, Prague, Czech Republic doi: [10.1109/EFTF-IFC.2013.6702294](https://doi.org/10.1109/EFTF-IFC.2013.6702294) (2013)
- *Reduction of the Magnetic Sensitivity of an Atomic Clock Against the Non-Uniformity and Variations of the C-Field*, L. Marmet, Proceedings of the IEEE International Frequency Control Symposium and the European Frequency and Time forum, San Francisco doi: [10.1109/FCS.2011.5977738](https://doi.org/10.1109/FCS.2011.5977738)(2011)
- *Evaluation of NRC-FCs1: Mapping the C-field using the Larmor frequency*, L. Marmet, M. Gertsvolf, Proceedings of the Frequency Control Symposium, Newport Beach CA doi: [10.1109/FREQ.2010.5556322](https://doi.org/10.1109/FREQ.2010.5556322)(2010)
- *Update on the development of NRC-FCs1*, L. Marmet, Proceedings of the IEEE International Frequency Control Symposium Joint with the 22nd European Frequency and Time forum, Besançon France (Apr. 2009)
- *Detailed description of FCs1: NRC's cesium fountain primary standard*, L. Marmet, B. Hoger, P. Dubé, A.A. Madej, J.E. Bernard, Proceedings of the IEEE Int'l Frequency Control Symposium, Honolulu (2008)
- *Optical Forces as a Redshift Mechanism: The “Spectral Transfer Redshift”*, L. Marmet, 2nd Crisis in Cosmology Conference, CCC-2 [268](#) (2008)
- *Progress in Building NRC's Cesium Fountain Clock*, L. Marmet, P. Dubé, C. Gigault, Proceedings of the IEEE International Frequency Control Symposium, Vancouver (2005)
- *Progress towards NRC's fountain clock FCs1*, L. Marmet, E. Guillot, J.-S. Boulanger, Conference on Precision Electromagnetic Measurements digest, p. 468, Ottawa (2002)
- *An electrostatic light shutter for atomic fountain clocks*, L. Marmet, R.M. Thomson, Proceedings of the IEEE International Frequency Control Symposium and PDA Exhibition, New Orleans (2002)
- *The Ultimate Accuracy of Cooled-Cesium Atomic Clocks: Only time will tell*, L. Marmet, Invited talk, CAP Congress, 17-20 June, Victoria, B.C. (2001)
- *Precision Absolute Frequency Measurements using a Strontium Single Ion Optical Frequency Standard*, L. Marmet, A.A. Madej, J.E. Bernard, K.J. Siemsen, C. Latrasse, D. Touahri, M. Poulin, M. Allard, M. Têtu, Invited talk, IEEE/EIA International Frequency Control Symposium, Kansas City (June 2000)

- *Preliminary Results of NRC's Atomic Cesium Fountain*, L. Marmet, M.-C. Gagné, J.-S. Boulanger, R.J. Douglas, E. Guillot, S. Ghezali, IEEE/EIA International Frequency Control Symposium, Kansas City MO, U.S.A. (June 2000)
- *Dynamical Behaviour of the Temperature in Cs Optical Molasses*, L. Marmet, M.-C. Gagné, J.-S. Boulanger, Proceedings of the IEEE International Frequency Control Symposium, Pasadena CA, U.S.A., 46 doi: [10.1109/FREQ.1998.717878](https://doi.org/10.1109/FREQ.1998.717878) (May 1998)
- *Breaking the Kilohertz Barrier: Optical Spectroscopy at the Hertz Level for Single Trapped Ion*, L. Marmet, A.A. Madej, J.E. Bernard, B.G. Whitford, K.J. Siemsen, Canadian Association of Physicists Congress, Calgary (1997)
- *Precision frequency measurement of the clock transition in a Sr^+ single atom with an ultra-stable diode laser*, L. Marmet, A.A. Madej, K.J. Siemsen, J.E. Bernard, Conference on Precision Electromagnetic Measurements, Braunschweig, Germany doi: [10.1109/CPEM.1996.547331](https://doi.org/10.1109/CPEM.1996.547331) (1996)
- *Laser coupling to an ultra-stable Fabry-Perot cavity using optical fiber coupling*, L. Marmet, J.D. Sankey, Congrès de l'Association Canadienne des Physiciens, Québec City (1995)
- *Wave packet motion in B and E fields observed with a phase sensitive technique*, L. Marmet, H. Held, G. Raithel, J.A. Yeazell, H. Walther, Optical Society of America Annual Meeting, Toronto (1993)
- *Classical orbits of a Rydberg atom in strong electric and magnetic fields*, L. Marmet, J.A. Yeazell, G. Raithel, H. Held, H. Walther, Deutsche Physikalische Gesellschaft Frühjahrstagung, Berlin (1993)
- *Second-harmonic generation in atomic hydrogen at Lyman-Alpha*, L. Marmet, K. Hakuta, B.P. Stoicheff, Optical Society of America Annual Meeting, Boston MA, U.S.A. (1990)
- *Second-harmonic generation in atomic hydrogen*, L. Marmet, K. Hakuta, Optical Society of America Annual Meeting, Orlando FL (1989)
- *Charge-separation field induced second harmonic in atomic hydrogen*, L. Marmet, Ontario Laser and Lightwave Research Centre, Light propagation in Nonlinear Media (Summer School One), Orangeville, Ontario (1989)
- *Fluorescence Excitation and Lifetime Measurements in Atomic Hydrogen*, L. Marmet, B.P. Stoicheff, Canadian Association of Physicists Congress, Toronto (1987)
- *Automation d'un magnétomètre supraconducteur*, G. Lamarche, F. Lamarche, L. Marmet, M. d'Iorio, Association Canadienne-Française pour l'avancement des Sciences, ACFAS 52nd Congress, Québec Qué. (May 9-11 1984)

Seminars

- *Cold Atoms, Cool Lasers, and a light-atom interaction that can heat interstellar gases*, PAGE Conference, Department of Physics, York University (May 10, 2018)
- *Accurate time measurement: how and why?* Guest lecturer, Carleton University, Ottawa (Sept. 2011)
- *Measuring the 15th significant digit: Evaluation of a Fountain Clock*, INMS Seminar Series, Ottawa (Nov. 2009)
- *Frequency & Time Group and NRC activities*, National Physical Laboratories, UK (June 2008)
- *Building Better Atomic Clocks*, University of Ottawa Physics Colloquium, Ottawa (Mar. 2006)
- *Cooled Cesium Standards and Beyond*, INMS Seminar Series, Ottawa (Oct. 2005)
- *Atomic Time with Cooled Cesium Atoms*, Invited talk, York University, Toronto (Mar. 2004)
- *NRC's Cooled Cesium Time Standard*, Inv. talk (given by A. Madej), Banff Meeting on Cooled Atoms (21 Feb. 2004)
- *The ultimate accuracy of Cooled-Cesium Atomic Clocks*, Invited talk, University of Ottawa, Ottawa (Oct. 2001)

Reports and Papers

- *Escaping cosmology's failing paradigm*, B. Ekeberg, **L. Marmet**, The Institute of Art and Ideas, [iai news](https://iaonline.org/news/2021/11/04/escaping-cosmology-s-failing-paradigm/) (Nov. 4, 2021)
- *ACG Newsletter*, **L. Marmet**, [A Cosmology Group](https://www.astronomy.com/newsletters/acg/), 34 Newsletters (March 2018 – June 2024)
- *On the Interpretation of Spectral Red-Shift in Astrophysics: A Survey of Red-Shift Mechanisms - II*, **L. Marmet**, [arXiv:1801.07582](https://arxiv.org/abs/1801.07582) (Jan. 2018)

- *First occurrences of square-free gaps and an algorithm for their computation*, **L. Marmet**, [arXiv:1210.3829](https://arxiv.org/abs/1210.3829) (Oct. 2012)
- *Rotation Dynamics of a Galaxy with a Double Mass Distribution*, **L. Marmet**, [arXiv:1210.1998](https://arxiv.org/abs/1210.1998) (Oct. 2012)
- *NRC's recommendations for the questionnaire SG7 ITU-R and advice on the proposed revision of Recommendation ITU-R TF.460-6*, **L. Marmet**, for Industry Canada, the Canadian representative of the International Telecommunications Union (Sept. 2010)
- *Smallest integer equal to the sum and the product of the same n positive integers*, **L. Marmet**, Sequence [A104173](#), On-Line Encyclopedia of Integer Sequences, N.J. Sloane, AT&T Research (Mar. 2005)
- *Finite Element Analysis on the Length Change of a ULE Glass Bar for a Stable Reference*, **L. Marmet**, P. Dubé, G. Li, G. Shi, INMS-NRC Report NRCC46691 (2005)
- *Smallest of first run of exactly n consecutive integers which are not square-free; $Q_{\text{gap}}(10)$, $Q_{\text{gap}}(12)$ to $Q_{\text{gap}}(18)$* , **L. Marmet**, D. Bernier, Sequence [A051681](#), On-Line Encyclopedia of Integer Sequences, N.J. Sloane, AT&T Research (Dec. 1999)
- *Updated precision measurement of a CO_2 laser based reference frequency for the frequency measurement of the $445 \text{ THz } ^{88}\text{Sr}^+$ single ion transition*, K.J. Siemsen, A.A. Madej, **L. Marmet**, J.E. Bernard, NRC Internal Report No. NRCC 41372, Ottawa, Canada. National Research Council of Canada (October 1997)
- *Preliminary Phase Coherent Frequency Chain Measurements of the $445 \text{ THz } \text{Sr}^+$ Single Ion Transition*, J.E. Bernard, B.G. Whitford, A.A. Madej, **L. Marmet**, K.J. Siemsen, NRC Internal Report No. NRCC 41373, Ottawa, Canada. National Research Council of Canada (October 1997)
- *Almanach Graphique*, **L. Marmet**, Le Centre de Québec de la Société Royale d'Astronomie du Canada, ISSN 0384-7691, Published annually (1979–1991)

Public Outreach

- *La théorie du Big Bang: Comment en est-on venu à penser que l'univers provient d'une gigantesque explosion?* Déjeuner-conférence, Société des Amis Canada-France (29 septembre 2018)
- *Canadian time keepers*, radio interview with Maxime De Kiewit, CJMQ 88.9FM Lennoxville (Mar. 11, 2013)
- *Le changement de l'heure*, radio interview with Marie-Line Leblanc, CFIM 92.7FM Iles-de-la-Madeleine (Mar. 8, 2013)
- *How Canada's Official Time is Kept*, NRC promotional video www.youtube.com/watch?v=HFMsI.ZbOSw, Ottawa (Mar. 7, 2013)
- *CBC Quirks and Quarks*, interview about the second and the meter, Ottawa (Jan. 12, 2013)
- *The time change and the effects on humans*, Interview on 600AM Calgary (Nov. 1, 2012)
- *CTV News Channel Express*, live interview about the leap second, Ottawa (June 29, 2012)
- *Les chroniques scientifiques de Jean-René Dufort*, interview, Explora science channel (Radio Canada), episode 14 "le temps canadien" (Sept. 24, 2012)
- *Là est la question*, interview, TFO TV, Montréal (Sept. 14, 2011)
- *Canada's Official Time*, interview, J.D. Brown, CJBQ-AM Belleville, Ontario (Feb. 24, 2011)
- *Le maître horloger du Canada*, interview, D. Thibeault, Radio-Canada Télévision, Ottawa (Dec. 31, 2010)
- *A global shortage of memory chips in the blink of an eye*, interview, P. Waldie, Globe and Mail (Dec. 10, 2010)
- *Le temps atomique canadien et la collaboration avec le Bureau International des Poids et Mesures*, seminar, Société des Amis Canada-France, Ottawa (Apr. 18, 2010)
- *Tours of NRC-INMS laboratories for students from École Polytechnique* (Oct. 22&29, 2009)
- *2011: L'odyssée du temps*, documentary, Le Code Chastenay, Télé Québec/Pixom (Feb. 11, 2008)
- *Clock changes - Daylight saving time*, live interview, R. d'Anjou, CHRC-AM (Corus), Québec (Nov. 2, 2007)
- *Time is on our side*, interview, A. Ventimiglia, Canadian Geographic, Ottawa (July/Aug. 2007)
- *Tour of NRC-INMS laboratories for 30 Toronto students*, Ottawa (May 28, 2007)
- *Universal Time: How can an atomic clock tick so accurately?* CISTI Seminars, Ottawa (Apr. 25, 2007)
- *Daylight Saving time*, interview, S. Fabiant, Radio-Canada Calgary (Mar. 9, 2007)
- *Decision to change Daylight Saving Time schedule*, interview, K. Djinko, Radio-Canada, Toronto (Mar. 9, 2007)

- *Tout le Monde Debout*, live interview about Daylight Saving Time, M.-C. Morin, and A. Larivière, radio Rock Détente 94.9-FM, Gatineau (Mar. 9, 2007)
- L'heure avancée, live interview, S. Chiasson, Radio-Canada, Moncton (Mar. 7, 2007)
- *How Canada has shaped the history of time*, web news interview, Capital News, Ottawa (Jan. 26, 2007)
- *Does anyone have the time?* documentary, Daily Planet (Discovery Channel Canada) (May 10, 2006)
- *La machine à mesurer le temps*, interview, B.A. Vu Van, Québec Science magazine (Mar. 2006)
- *Why a clock that loses 1 second every 30 million years won't cut it*, interview, S. Rennie, The Ottawa Citizen (Feb. 17, 2006)
- *A l'abris du temps*, documentary, S. Drolet, 78 min., National Film Board (2000)

Other Conference Proceedings

- *Measurements of diffusion coefficients for rubidium–inert gas mixtures using coherent scattering from optically pumped population gratings*, E. Ramos, A. Pouliot, G. Carlse, T. Vacheresse, J. Randhawa, **L. Marmet**, and A. Kumarakrishnan, PAGE Conference, Toronto (June 2024)
- *Progress toward precise determination of atomic lifetimes using photon echoes*, T. Vacheresse, G. Carlse, A. Pouliot, H.C. Beica, **L. Marmet**, and A. Kumarakrishnan, DAMOP, Orlando (2022)
- *Rapid mass determination of airborne microparticles based on release and recapture from a free-space optical dipole force trap*, G. Carlse, K.B. Borsos, H.C. Beica, T. Vacheresse, A. Pouliot, J. Perez-Garcia, A. Vorozcovs, B. Barron, S. Jackson, **L. Marmet** and A. Kumarakrishnan, DAMOP, Orlando (2022)
- *Precise Determination of Atomic Lifetimes Based on Optical Photon Echoes*, H.C. Beica, A. Pouliot, P. Dowling, A. Carew, T. Vacheresse, G. Carlse, **L. Marmet**, A. Kumarakrishnan, Frontiers in Optics/Laser Science - OSA Meeting, JTu4A, Washington D. C. (September 2019)
- *Optical Tweezers Experiments with Home Built laser systems*, K. Borsos, G. Carlse, H. Beica, J. Perez-Garcia, A. Pouliot, T. Vacheresse, **L. Marmet**, A. Kumarakrishnan, York University NSERC USRA Conference, Toronto (July 2019)
- *Time and Frequency activities at NRC*, P. Dubé, A.A. Madej, J.E. Bernard, **L. Marmet**, M. Gertszov, in Time and Frequency Metrology III, Proceedings of the SPIE, San Diego, California, USA (T. Ido and T.R. Schibli eds.) SPIE press, Bellingham WA, ISBN 978-0-8194-8742-1, Vol. 8132, pp. [81320G-1 to 81320G-11](#) (2011)
- *Overview of Highly Accurate RF and Optical Frequency Standards at the National Research Council of Canada*, A.A. Madej, J.E. Bernard, P. Dubé, **L. Marmet**, in Proceedings of the 7th Symposium on Frequency Standards and Metrology (L. Maleki ed.) World Scientific, Singapore, ISBN-13 978-981-283-821-6, pp. [259–267](#) (2009)
- *Extended Precision Measurements of a Strontium Single Ion Optical Frequency Standard and its Development as an Optical Atomic Clock*, A.A. Madej, P. Dubé, J.E. Bernard, A.D. Shiner, **L. Marmet**, J. Jiang, D.J. Jones, in Conference on Precision Electromagnetic Measurements Digest, 8-13 June 2008, Broomfield CO (A.H. Cookson ed.) Johnson Printing, USA, IEEE Catalog No. CFP08PEM-PRT, ISBN: 978-1-4244-2399-6, pp. [92–93](#) (2008)
- *Measurement of the $^{88}\text{Sr}^+$ reference transition frequency with a new probe laser system*, P. Dubé, **L. Marmet**, A.A. Madej, J.E. Bernard, in 2004 Conference on Precision Electromagnetic Measurements Digest. IEEE Press, Piscataway NJ, USA, IEEE Catalog No. 04CH37570, pp. 283–284 [doi: 10.1109/CPEM.2004.305574](#) (2004)
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