

List of publications, scientific communication and outreach activities of Gaetano Miletì

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In summary:

- 1) 71** peer-reviewed articles in international scientific journals (pages 1-5)
- 2) 109** articles in proceedings of international scientific conferences (pages 6-12)
- 3) 5** articles in books (page 13)
- 4) 23** articles in ESA (European Space Agency) SPIE (Int. Society of Optics and Photonics) and other reviews or journals (pages 13-14)
- 5) 120** other communications (oral or poster, without proceedings) in scientific conferences (pages 15-22)
- 6) Approximately 60 other communications:** general public conferences, organization of events, scientific vulgarization and appearances in the medias (p. 23-26)

1. Peer-reviewed publications in international scientific journals (71)

A. Bregazzi, E. Batori, B. Lewis, C. Affolderbach, G. Miletì, P. Griffin and E. Riis, *A compact cold atom cavity clock*, DOI 10.1088/1742-6596/2889/1/012034, **Journal of Physics: Conference Series**, 2889 012034, (2024)

N. Dimarcq, M. Gertsz, G. Miletì, S. Bize, C.W. Oates, E. Peik, D. Calonico, T. Ido, P. Tavella, F. Meynadier, G. Petit, G. Panfilò, J. Bartholomew, P. Defraigne, E. A. Donley, P. O. Hedekvist, I. Sesia, M. Wouters, P. Dube, F. Fang, F. Levi, J. Lodewyck, H. S. Margolis, D. Newell, S. Slyusarev, S. Weyers, J.-P. Uzan, M. Yasuda, D.-H. Yu, C. Rieck, H. Schnatz, Y. Hanado, M. Fujieda, P.-E. Pottie, J. Hanssen, A. Malimon, N. Ashby, *Roadmap towards the redefinition of the second*, DOI 10.1088/1681-7575/ad17d2, **Metrologia**, 61 012001, (2024)

A. Bregazzi, E. Batori, B. Lewis, C. Affolderbach, G. Miletì, E. Riis, P. Griffin, *A cold-atom Ramsey clock with a low volume physics package*, <https://doi.org/10.1038/s41598-024-51418-8>, **Scientific Reports**, 14, 931 (2024)

Y. Su, M. Pellaton, C. Affolderbach, G. Miletì, A. K. Skrivervik, *Mode Suppression and Homogeneous Field Bandwidth Enhancement of a Tuning-Free Micro-Loop-Gap Resonator Using FR4 for Chip-Scale Rubidium Clock* **IEEE Transactions on Microwave Theory and Techniques**, 71, n. 12, December (2023)

Y. Su, C. Affolderbach, M. Pellaton, G. Miletì, A. K. Skrivervik, *A Wide-Frequency-Tuning Micro-Loop-Gap Resonator for Miniature Rubidium Vapor-Cell Atomic Frequency Standards*, DOI: 10.1109/TMTT.2023.3276194, **IEEE Transactions on Microwave Theory and Techniques**, (2023)

S. Abend, B. Allard, A. S. Arnold, T. Ban, L. Barry, B. Battelier, A. Bawamia, Q. Beauvils, S. Bernon, A. Bertoldi, A. Bonnin, P. Bouyer, A. Bresson, O. S. Burrow, B. Canuel, B. Desruelle, G. Drougakis, R. Forsberg, N. Gaaloul, A. Gauguier, M. Gersemann, P. F. Griffin, H. Heine, V. A. Henderson, W. Herr, S. Kanthak, M. Krutzik, M. D. Lachmann, R. Lammegger, W. Magnes, G. Miletì, M. W. Mitchell, S. Mottini, D. Papazoglou, F. Pereira dos Santos, A. Peters, E. Rasel, E. Riis, C. Schubert, S. T. Seidel, G. M. Tino, M. Van Den Bossche, W. von Klitzing, A. Wicht, M. Witkowski, N. Zahzam, M. Zawada, *Technology roadmap for cold-atoms based quantum inertial sensor in space*, <https://doi.org/10.1116/5.0098119>, **AVS Quantum Science**, 5, 019201, (2023)

E. Batori, A. Bregazzi, B. Lewis, P. F. Griffin, E. Riis, G. Miletì, C. Affolderbach, *An additive-manufactured microwave cavity for a compact cold-atom clock*, <https://doi.org/10.1063/5.0151207>, **Journal of Applied Physics** 133, 224401, (2023)

- E. Batori, C. Affolderbach, M. Pellaton, F. Gruet, M. Violetti, Y. Su, A. K. Skrivervik, G. Mileti, *μ POP Clock: A Microcell Atomic Clock Based on a Double-Resonance Ramsey Scheme*, DOI: <https://doi.org/10.1103/PhysRevApplied.18.054039>, **Physical Review Applied** 18, 054039, (2022)
- E. Batori, N. Almat, C. Affolderbach, G. Mileti, *GNSS-grade Space Atomic Frequency Standards: Current Status and Ongoing Developments*, doi.org/10.1016/j.asr.2020.09.012, **Advances in Space Research**, 68(12), 4723-4733 (2020)
- N. Almat, M. Gharavipour, W. Moreno, F. Gruet, C. Affolderbach, G. Mileti, *Long-Term Stability Analysis Towards 10^{-14} Level for a Highly Compact POP Rb Cell Atomic Clock*, **IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control**, 67(1), 207 – 216 (2020)
- W. Moreno, C. Affolderbach, M. Pellaton, G. Mileti, *Impact of microwave-field inhomogeneity in an alkali vapour cell using Ramsey double-resonance spectroscopy*, **Quantum Electronics**, 49 (3), 293-297, (2019)
- N. Almat, M. Pellaton, W. Moreno, F. Gruet, C. Affolderbach, G. Mileti, *Rb vapor-cell clock demonstration with a frequency-doubled telecom laser*, **Applied Optics**, 57, 4707-4713, (2018)
- W. Moreno, C. Affolderbach, M. Pellaton, G. Mileti, *Barometric effect in vapor cell atomic clocks*, **IEEE Transactions on Ultrasonics, Ferroelectrics and Frequency Control**, 65, 1500-1503, (2018)
- M. Pellaton, C. Affolderbach, A. K. Skrivervik, A. E. Ivanov, T. Debogovic, E. de Rijk, G. Mileti, *3D printed microwave cavity for atomic clock applications: proof of concept*, **Electronics Letters**, 54, 691-693, <http://dx.doi.org/10.1049/el.2017.4176>, (2018)
- C. Affolderbach, W. Moreno, A. E. Ivanov, T. Debogovic, M. Pellaton, A. K. Skrivervik, E. de Rijk, G. Mileti, *Study of additive manufactured microwave cavities for pulsed optically pumped atomic clock applications*, **Applied Physics Letters**, 112, 113502, (2018)
- N. Almat, W. Moreno, M. Pellaton, F. Gruet, C. Affolderbach, G. Mileti, *Characterization of Frequency-Doubled 1.5- μ m Lasers for High Performance Rb Clocks*, **IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control**, 65, 919-926, (2018)
- M. Gharavipour, C. Affolderbach, F. Gruet, I. Radojčić, A. Krmpot, B. Jelenkovic, G. Mileti, *Optically-Detected Spin-Echo method for relaxation times measurements in a Rb atomic vapor*, **New Journal of Physics**, Volume 19, 063027, (2017)
- A. Ivanov, C. Affolderbach, G. Mileti, A. K. Skrivervik, *Design of Atomic Clock Cavity Based on a Loop-gap Geometry and Modified Boundary Conditions*, **International Journal of Microwave and Wireless Technologies**, June (2017)
- M. Gharavipour, C. Affolderbach, S. Kang, and G. Mileti, *Double-resonance spectroscopy in Rubidium vapour-cells for high performance and miniature atomic clocks*, **Journal of Physics: Conf. Series**, 793, 012007 (2017)
- M. Gharavipour, C. Affolderbach, S. Kang, T. Bandi, F. Gruet, M. Pellaton, G. Mileti, *High performance vapor cell frequency standards*, **Journal of Physics: Conference Series**, 723, 012006, (2016)
- R. Matthey, W. Moreno, F. Gruet, P. Brochard, S. Schilt, G. Mileti, *Rb-based stabilized laser at 1572 nm for CO₂ monitoring*, **Journal of Physics: Conference Series**, 723 012034, (2016)
- Y. Salvadé, F. Przygodda, M. Rohner, A. Ploster, Y. Meyer, O. Gloriot, M. Llera, R. Matthey, J. Di Francesco, F. Gruet, G. Mileti, *Interferometric measurements beyond the coherence length of the laser source*, **Optics Express**, 24 (19), 21729-21743 (2016)
- S. Kang, M. Gharavipour, C. Affolderbach, G. Mileti, *Stability limitations from optical detection in Ramsey-type vapour-cell atomic clocks*, **Electronics Letters**, 51, 1767-1769, (2015)
- S. Abdullah, C. Affolderbach, F. Gruet, and G. Mileti, *Aging studies on micro-fabricated alkali buffer-gas cells for miniature atomic clocks*, **Applied Physics Letters**, 106, 163505, (2015)
- R. Matthey, F. Gruet, S. Schilt, G. Mileti, *Compact Rubidium-Stabilized Multi-Frequency Reference Source in the 1.55- μ m Region*, **Optics Letters**, 40 (11), 2576-2579, (2015)
- K. Masuda, C. Affolderbach, G. Mileti, J.-C. Diels, L. Arissian, *Self-induced transparency and coherent population trapping of ⁸⁷Rb vapor in a mode-locked laser*, **Optics Letters**, 40, 2146-2149, (2015)

- C. Affolderbach, G.-X. Du, T. Bandi, A. Horsley, P. Treutlein, G. Miletì, *Imaging Microwave and DC Magnetic Fields in a Vapor-Cell Rb Atomic Clock*, **IEEE Transactions on Instrumentation and Measurement**, Volume 64, Issue 12, 3629-3637, (2015)
- S. Kang, M. Gharavipour, C. Affolderbach, F. Gruet, G. Miletì, *Demonstration of a high-performance pulsed optically pumped Rb clock based on a compact magnetron-type microwave cavity*, **Journal of Applied Physics**, 117, 104510, (2015)
- T. Bandi, C. Affolderbach, C. Stefanucci, F. Merli, A. K. Skrivervik, G. Miletì, *Compact high-performance continuous-wave double-resonance rubidium standard with $1.4 \times 10^{-13} \tau^{-1/2}$ stability*, **IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control**, 61, 1769 – 1778 (2014)
- R. Straessle, M. Pellaton, C. Affolderbach, Y. Pétremand, D. Briand, G. Miletì, N. F. de Rooij, *Microfabricated Alkali Vapor Cell with Anti-Relaxation Wall Coating*, **Applied Physics Letters**, 105, 043502 (2014)
- M. Violetti, M. Pellaton, F. Merli, J.-F. Zürcher, C. Affolderbach, G. Miletì, A. K. Skrivervik, *The Micro Loop-Gap Resonator: A Novel Miniaturized Microwave Cavity for Double-Resonance Rubidium Atomic Clocks*, **IEEE Journal of Sensors**, 14, 9, (2014)
- Y. Zhao, S. Tanner, A. Casagrande, L. Schneller, C. Affolderbach, G. Miletì, P.-A. Farine, *CPT Cesium-Cell Atomic Clock Operation With a 12-mW Frequency Synthesizer ASIC*, **IEEE Transactions on Instrumentation and Measurements**, Vol. 64, Issue 1, doi:10.1109/TIM.2014.2329383, (2014)
- V. Venkatraman, S. Kang, C. Affolderbach, H. Shea and G. Miletì, *Optical pumping in a microfabricated Rb vapor cell using a microfabricated Rb discharge light source*, **Applied Physics Letters**, 104, 054104, (2014)
- A. Horsley, G.-X. Du, M. Pellaton, C. Affolderbach, G. Miletì, P. Treutlein, *Imaging of Relaxation Times and Microwave Field Strength in a Microfabricated Vapor Cell*, **Physical Review A**, 88, 063407, (2013)
- F. Gruet, E. Kroemer, L. Bimboes, D. Miletic, C. Affolderbach, A. Al-Samaneh, D. Wahl, R. Boudot, G. Miletì and R. Michalzik, *Metrological Characterization of Custom-Designed 894 nm VCSELs for Chip Scale Atomic Clocks*, **Optics Express**, 21, issue 5, 5781-5792, (2013)
- R. Straessle, M. Pellaton, Y. Pétremand, C. Affolderbach, D. Briand, G. Miletì, and N. F. de Rooij, *Low-Temperature Indium Hermetic Sealing of Alkali Vapor-Cells for Chip Scale Atomic Clocks*, submitted to **Journal of Applied Physics**, 113, issue 6, 064501/1-8, (2013)
- F. Gruet, F. Vecchio, C. Affolderbach, Y. Pétremand, N. F. de Rooij, T. Maeder, G. Miletì, *A Miniature Frequency-Stabilized VCSEL system emitting at 795 nm based on LTCC modules*, **Optics and Lasers in Engineering**, 51, issue 8, 1023–1027, (2013)
- C. Stefanucci, T. Bandi, F. Merli, M. Pellaton, C. Affolderbach, G. Miletì, and A. K. Skrivervik, *Compact Microwave Cavity for High Performance Rubidium Frequency Standards*, **Review of Scientific Instruments**, vol. 83, 104706 (2012)
- D. Miletic, C. Affolderbach, M. Hasegawa, R. Boudot, C. Gorecki, G. Miletì, *AC Stark-shift in CPT based Cs miniature atomic clocks*, **Applied Physics B**, Volume 109, Issue 1, 89-97, September (2012)
- T. Bandi, C. Affolderbach, G. Miletì, *Laser-pumped paraffin-coated cell rubidium frequency standard*, **Journal of Applied Physics**, Volume 111, Issue 12, 124906, (2012)
- Y. Pétremand, C. Affolderbach, R. Straessle, M. Pellaton, D. Briand, G. Miletì and N. F. de Rooij, *Microfabricated rubidium vapour-cell with a thick glass core for small scale atomic clock applications*, **Journal of Micromechanics and Microengineering**, 22, 025013, (2012)
- D. Miletic, T. Bandi, C. Affolderbach, G. Miletì, *AC Stark shift in Double Resonance and Coherent Population Trapping in a wall-coated cell for compact Rb atomic clocks*, **Physica Scripta**, T149, 014012 (2012)
- V. Venkatraman, Y. Petremand, C. Affolderbach, G. Miletì, N. De Rooij, H. Shea, *Microfabricated chip-scale rubidium plasma light source for miniature atomic clocks*, **IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control**, vol. 59, no. 3, p. 448, (2012)

- M. L. Pellaton, C. Affolderbach, Y. Petremand, N. de Rooij, G. Mileti, *Study of laser-pumped double-resonance clock signals using a microfabricated cell*, **Physica Scripta**, T149, 014013, (2012)
- R. Matthey, C. Affolderbach, G. Mileti, *Methods and evaluation of frequency aging in DFB laser diodes for Rubidium atomic clocks*, **Optics Letters**, Vol. 36, No. 17, p. 3311-3313, (2011)
- T. Bandi, C. Affolderbach, C. E. Calosso, and G. Mileti, *High-Performance Laser-Pumped Rubidium Frequency Standard for Satellite Navigation*, **Electronics Letters**, Vol. 47, No. 12, p. 698-699, (2011)
- R. Boudot, D. Miletic, P. Dziuban, C. Affolderbach, P. Knapkiewicz, J. Dziuban, G. Mileti, V. Giordano, and C. Gorecki, *First-order cancellation of the Cs clock frequency temperature-dependence in Ne-Ar buffer gas mixture*, **Optics Express**, Vol. 19, No. 4, p. 3106-3114, (2011)
- E. Breschi, G. Kazakov, C. Schori, G. Di Domenico, G. Mileti, A. Litvinov, B. Matisov, *Study of light effects in the atomic-motion-induced Ramsey narrowing of dark resonances in wall coated cells*, **Physical Review A**, **82**, 063810, (2010)
- D. Miletic, P. Dziuban, R. Boudot, M. Hasegawa, R. K. Chutani, G. Mileti, V. Giordano and C. Gorecki, *Quadratic dependence on temperature of Cs 0-0 hyperfine resonance frequency in single Ne buffer gas microfabricated vapour cell*, **Electronics Letters**, 46, Issue 15, p.1069-1071, (2010)
- E. Breschi, G. Kazakov, R. Lammegger, G. Mileti, B. Matisov, L. Windholz, *Quantitative study of destructive quantum interference effect on the $|\text{lin}|/|\text{lin CPT}|$* , **Physical Review A**, **79**, 063837, (2009)
- E. Breschi, G. Kazakov, R. Lammegger, B. Matisov, L. Windholz, and G. Mileti, *Influence of Laser Sources with Different Spectral Properties on the Performance of Vapor Cell Atomic Clocks Based on $|\text{lin}|/|\text{lin CPT}|$* , **IEEE Tran. on Ultrasonics, Ferroelectronics and Frequency Control**, V. 56, N. 5, p. 926, May (2009)
- S. Schilt, R. Matthey, D. Kauffmann-Werner, C. Affolderbach, G. Mileti, L. Thévenaz, *Laser offset-frequency locking up to 20 GHz using a low-frequency electrical filter technique*, **Applied Optics**, Vol. 47, No. 24, p. 4336, (2008)
- S. Schiller, A. Görlitz, A. Nevsky, J. C. J. Koelemeij, A. Wicht, P. Gill, H. A. Klein, H. S. Margolis, G. Mileti, U. Sterr, F. Riehle, E. Peik, C. Tamm, W. Ertmer, E. Rasel, V. Klein, C. Salomon, G. M. Tino, P. Lemonde, R. Holzwarth, T. W. Hänsch, *Optical clocks in space*, **Nuclear Physics B**, Volume 166, pp. 300-302, (2006)
- R. Matthey, S. Schilt, C. Affolderbach, D. Werner, L. Thévenaz, G. Mileti, *Diode laser frequency stabilisation for water vapour differential absorption sensing*, **Applied Physics B**, Vol. 85, N. 2-3, pp. 477-485, (2006)
- C. Affolderbach, F. Droz, G. Mileti, *Experimental demonstration of a compact and high-performance laser-pumped Rubidium gas-cell atomic frequency standard*, **IEEE Transactions on Instrumentation and Measurements**, Vol. 55, No. 2, pp. 429-435, April (2006)
- G. Kazakov, B. Matisov, I. Mazets, G. Mileti, and J. Delporte, *Pseudoresonance mechanism of all-optical frequency-standard operation*, **Physical Review A**, Volume 72, 063408, December (2005)
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- C. Affolderbach, G. Mileti, *A compact laser head with high-frequency stability for Rb atomic clocks and optical instrumentation*, **Review of Scientific Instruments**, Volume 76, 073108, (2005)
- G. Kazakov, I. Mazets, Yu. Rozhdestvensky, G. Mileti, J. Delporte, and B. Matisov, *High-contrast dark resonance on the D_2 - line of ^{87}Rb in a vapor cell with different directions of the pump - probe waves*, **The European Physical Journal D**, Volume 35, pp. 445-448, February (2005)
- C. Affolderbach, C. Andreeva, S. Cartaleva, T. Karaulanov, G. Mileti, D. Slavov, *Light shift suppression in laser optically-pumped vapour-cell atomic frequency standards*, **Applied Physics B**, Vol. 80, N. 7, (2005)
- G. Kazakov, B. Matisov, J. Delporte, G. Mileti, *A new method of dark resonance excitation on D_2 line in ^{87}Rb vapor*, **Technical Physics Letters** — June 2005, V. 31, No.7, pp. 570-572, (2005)

- C. Affolderbach, G. Mileti, *Tuneable, stabilised diode lasers for compact atomic frequency standards and precision wavelength references*, **Optics and Lasers in Engineering**, Volume 43, 291–302, (2005)
- G. Di Domenico, N. Castagna, G. Mileti, and P. Thomann, A. V. Taichenachev, V. I. Yudin, *Laser collimation of a continuous beam of cold atoms using Zeeman shift degenerate Raman sideband cooling*, **Physical Review A**, Volume 69, 063403, (2004)
- G. Di Domenico, G. Mileti, and P. Thomann, *Pump-probe spectroscopy and velocimetry of cold atoms in a slow beam*, **Physical Review A**, 043408, Volume 64, Issue 4, October, (2001)
- G. Dudley, A. Joyet, P. Berthoud, G. Mileti, P. Thomann, *First results with a cold cesium continuous fountain resonator*, **IEEE Transactions on Instrumentations and Measurement** (Special issue on CPEM 2000), Volume 50, Number 2, p. 510-514, April (2001)
- A. Joyet, G. Mileti, G. Dudley, P. Thomann, *Theoretical study of the Dick effect in a continuously operated Ramsey resonator*, **IEEE Transactions on Instrumentations and Measurement**, Volume 50, Number 1, p. 150-156, February (2001)
- S. Lecomte, E. Fretel, G. Mileti and P. Thomann, *A self-aligned extended-cavity diode laser stabilized by Zeeman effect on Cesium D2 line*, **Applied optics**, Vol. 39, No 9, p. 1426, (2000)
- G. Dudley, G. Mileti, A. Joyet, E. Fretel, P. Berthoud, P. Thomann, *An alternative cold cesium frequency standard: the continuous fountain*, **IEEE Transactions on Instrumentations and Measurement** (Special issue on joint EFTF/FCS 1999), Volume 47, Number 2, p. 438-442, March (2000)
- J. Q. Deng, G. Mileti, R. E. Drullinger, D. A. Jennings, F. L. Walls, *Noise considerations for locking to the center of a lorentzian line*, **Physical Review A**, 59 (1), pp.773-777, (1999)
- G. Mileti, J. Q. Deng, D. A. Jennings, F. L. Walls, R. E. Drullinger, *Laser pumped rubidium frequency standards: new analysis and progress*, **IEEE Journal of Quantum Electronics**, vol. 34, 233, (1998)
- A. Joye, G. Mileti, Ch.-Ed. Pfister, *Interferences in adiabatic transition probabilities mediated by Stokes lines*, **Physical Review A**, 44 (7), pp. 4280-4295, (1991)

2. Articles in proceedings of peer-reviewed international scientific conferences (109)

2024 (4):

C. Affolderbach, M. Pellaton, W. Moreno, E. Batori, Y. Su, M. Violetti, A. Skrivervik, G. Mileti, *LEMAC: LTF EPFL Miniature Atomic Clock, Demonstrator Performance Evaluation* (talk), Proceedings of the 2024 9th International Colloquium on Scientific and Fundamental Aspects of GNSS, Wroclaw, September, (2024)

C. Affolderbach, M. Pellaton, Y. Su, W. Moreno, E. Batori, M. Violetti, A. K. Skrivervik, G. Mileti, *LEMAC: LTF-EPFL Miniature Atomic Clock Demonstrator Performance Evaluation* (talk), DOI: 10.1109/EFTF61992.2024.10722327, Proceedings of the 37th European Frequency and Time Forum (EFTF), Neuchâtel, June, (2024)

F. Gruet, C. Affolderbach, G. Mileti, *Laser Aging Studies for Rubidium Atomic Clocks* (poster), DOI: 10.1109/EFTF61992.2024.10722668, Proceedings of the 37th European Frequency and Time Forum (EFTF), Neuchâtel, June, (2024)

Y. Su, M. Violetti, A. K. Skrivervik, C. Affolderbach, M. Pellaton, W. Moreno, E. Batori, G. Mileti, *Micro-Loop-Gap Microwave Resonator Development for the LEMAC LTF-EPFL Miniature Atomic Clock* (poster), DOI: 10.1109/EFTF61992.2024.10722339, Proceedings of the 37th European Frequency and Time Forum (EFTF), Neuchâtel, June, (2024)

2023 (0):

2022 (3):

E. Batori, C. Affolderbach, M. Pellaton, F. Gruet, Y. Su, M. Violetti, A. Skrivervik, G. Mileti, *LEMAC: Design and studies towards miniature Rb atomic clocks in continuous wave and Ramsey-mode* (talk), Proceedings of the 2022 8th International Colloquium on Scientific and Fundamental Aspects of GNSS, Sofia, September, (2022)

E. Batori, C. Affolderbach, F. Gruet, M. Pellaton, Y. Su, M. Violetti, A. Skrivervik, G. Mileti, *Long-Term Instability of a Pulsed Optically Pumped Micro-cell Rubidium Frequency Standard* (talk), Proceedings of the 2022 Joint Conference of the European Frequency and Time Forum and IEEE International Frequency Control Symposium (EFTF/IFCS), Paris, April 24-28, (2022)

M. Pellaton, C. Affolderbach, E. Batori, Y. Su, M. Violetti, A. Skrivervik, G. Mileti, *LEMAC: LTF-EPFL Miniature Atomic Clock* (poster), Proceedings of the 2022 Joint Conference of the European Frequency and Time Forum and IEEE International Frequency Control Symposium (EFTF/IFCS), Paris, April 24-28, (2022)

2021 (3):

E. Batori, C. Affolderbach, V. Dolgovskiy, M. Pellaton, B. Lewis, P. F. Griffin, E. Riis, G. Mileti, *Additive Manufactured Microwave Cavity for a Compact Rb Cold-Atom Clock* (poster), Proceedings of the 2021 Joint Conference of the European Frequency and Time Forum and IEEE International Frequency Control Symposium (EFTF/IFCS), online, July 7-17, (2021)

E. Batori, C. Affolderbach, M. Pellaton, F. Gruet, Y. Su, M. Violetti, A. Skrivervik, G. Mileti, *Ramsey Spectroscopy in a Micro-Fabricated Rb Vapor Cell for Miniature Atomic Clocks* (talk), Proceedings of the 2021 Joint Conference of the European Frequency and Time Forum and IEEE International Frequency Control Symposium (EFTF/IFCS), online, July 7-17, (2021)

Y. Su, M. Pellaton, C. Affolderbach, G. Mileti, M. Veljovic, A. Skrivervik, *Characterization of Microwave Substrates for High Accuracy and Long-Term Stability Using Full-Wave Microstrip Ring Resonator Method*, European Microwave Week (EuMW), London, (2021)

2020 (1):

E. Batori, N. Almat, C. Affolderbach, F. Gruet, G. Mileti, *High-Performance Pulsed Laser-Pumped Rb Clock for GNSS*, proceedings of the European Navigation Conference 2020, ENC 2020 (online), Dresden, Germany, November 23-24, (2020)

2019 (3):

N. Almat, M. Gharavipour, W. Moreno, C. Affolderbach, G. Mileti, *Long-Term Stability Analysis Towards $< 10^{-14}$ Level for a Highly Compact POP Rb Cell Atomic Clock*, proceedings of the joint IEEE International Frequency Control Symposium (IFCS) and European Frequency and Time Forum (EFTF), Orlando, Florida, USA, April 14-18, (2019)

G. W. Hoth, R. Elvin, M. Wright, B. Lewis, A. Arnold, P. Griffin, E. Riis, F. Gruet, C. Affolderbach, G. Mileti, *Impact of Laser Frequency Noise in Coherent Population Trapping with Cold Atoms*, proceedings of the joint IEEE International Frequency Control Symposium (IFCS) and European Frequency and Time Forum (EFTF), Orlando, Florida, USA, April 14-18, (2019)

W. Moreno, M. Pellaton, N. Almat, M. Gharavipour, C. Affolderbach, G. Mileti, *Investigations on Microwave Power Shift in Compact Vapor-Cell Atomic Clock*, proceedings of the joint IEEE International Frequency Control Symposium (IFCS) and European Frequency and Time Forum (EFTF), Orlando, Florida, USA, April 14-18, (2019)

2018 (3):

C. Affolderbach, N. Almat, M. Gharavipour, F. Gruet, W. Moreno, M. Pellaton, G. Mileti, *Selected studies on high performance laser-pumped Rubidium atomic clocks*, proceedings of the International Frequency Control Symposium (IFCS), Olympic Valley, California, USA, May 22-24, (2018)

S. Schilt, R. Matthey, W. Moreno, F. Gruet, K. Hey Tow, L. Thévenaz, G. Mileti, T. Südmeyer, *Frequency stabilized seed lasers for CO₂ DIAL systems*, 2nd International workshop on space-based LIDAR remote sensing techniques and emerging technologies, Milos, Greece, June 4-8, (2018)

W. Moreno, C. Affolderbach, A. E. Ivanov, T. Debogovic, M. Pellaton, A. K. Skrivervik, E. de Rijk, G. Mileti, *Ramsey-mode Rb cell clock demonstration with a 3D-printed microwave cavity*, proceedings of the European Frequency and Time Forum (EFTF), Torino, Italy, April 10-12, (2018)

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G. Mileti, P. Thomann, *The impact of laser optical pumping on the physics and on the performances of the rubidium frequency standards*, **5th Symposium on Frequency Standards and Metrology**, 1995 pp. 392-393, editor James C. Bergquist, World Scientific, (1996)

4. Articles in SPIE, ESA or other publications (23)

G. Mileti, J. Gressot, *L'Observatoire cantonal de Neuchâtel: une institution scientifique spécialisée dans la mesure du temps*, La Revue Polytechnique, N°1897, pages 12-14, septembre (2024)

A. Bregazzi, E. Batori, B. Lewis, C. Affolderbach, G. Mileti, E. Riis, and P. Griffin, *A compact cold-atom double-resonance clock*, <https://doi.org/10.1117/12.2657390>, Proceedings of SPIE Photonic West, Quantum Sensing, Imaging, Precision Metrology, edited by S.M. Shahriar and J. Scheuer, p. 18., San Francisco, USA, (2023)

N. Von Bandel, M. Garcia, M. Lecomte, A. Larrue, Y. Robert, E. Vinet, O. Driss, O. Parillaud, M. Krakowski, F. Gruet, R. Matthey, G. Mileti, *DBF-ridge laser diodes at 894 nm for Cesium atomic clocks*, SPIE Photonic West, San Francisco, USA, February 13-18, Proceedings Volume 9755: Quantum Sensing and Nano Electronics and Photonics XIII, (2016)

J. Di Francesco, F. Gruet, C. Schori, C. Affolderbach, R. Matthey, G. Mileti, Y. Salvadé, Y. Petremand, N. De Rooij, *Evaluation of the frequency stability of a VCSEL locked to a micro-fabricated Rubidium vapour cell*, SPIE Photonics Europe, Bruxelles, April, Proceedings Volume 7720: Semiconductor Lasers and Laser Dynamics IV, (2010)

D. Miletic, C. Affolderbach, G. Mileti, *Spectroscopy of micro-fabricated Cs vapour cells for miniature atomic clocks*, 16th International School on Quantum Electronics "Laser Physics and Applications, ISQE, 20 – 24 September 2010, Nesebar, Bulgaria, Proc. of SPIE, Vol. 7747, 77470F-1, (2010)

R. Giannini, E. Breschi, C. Affolderbach, G. Bison, G. Mileti, H. P. Herzig, A. Weis, *Sub-Doppler diode laser frequency stabilization with the DAVLL scheme on the D_1 line of a ^{87}Rb vapor-cell*, Proceedings of the SPIE (Vol. 6604, 6604oL-1), 14th International School on Quantum Electronics "Laser physics and applications", Burgas, Bulgaria, (2006)

C. Affolderbach, E. Breschi, C. Schori, G. Mileti, *Gas-cell atomic clocks for space: new results and alternative schemes*, 6th Int. Conference on Space Optics (ICSO), ESA Special Publication, (2006)

R. Matthey, C. Affolderbach, G. Mileti, S. Schilt, L. Thévenaz, *Frequency-stabilised laser reference system for trace-gas sensing applications from space*, 6th International Conference on Space Optics (ICSO), ESA Special Publication, (2006)

C. Affolderbach, G. Mileti, *Laser diodes and vapour cells for Rubidium atomic clocks*, ESA Special Publication "First Workshop on Optical Clocks", pp. 19-26, (2006)

G. Kazakov, I. Mazets, Yu. Rozhdestvensky, G. Mileti, J. Delporte, and B. Matisov, *High-contrast dark resonance on the D_2 - Line of ^{87}Rb in a vapor cell with different directions of the pump - probe waves*, ESA Special Publication "First Workshop on Optical Clocks", pp. 85-90, (2006)

D. Slavov, C. Affolderbach, A. Mc Kee, W. Meredith, G. Mileti, *Realisation and Spectral Characterization of GaAs/AlGaAs Fabry-Perot (RWL) Laser Diodes for Optical Pumping in Rubidium Atomic Clocks*, ESA Special Publication "First Workshop on Optical Clocks", pp. 125-132, (2006)

- D. Slavov, C. Affolderbach, N. Laleu, S. Lecomte, P. Berthoud, G. Erbert, A. Klehr, H. Wenzel, G. Miletì, *DFB laser diodes for laser-pumped Cesium beam atomic clocks*, ESA Special Publication "First Workshop on Optical Clocks", pp. 147-153, (2006)
- G. Miletì, C. Affolderbach, F. Droz, E. Murphy, *Navigating more precisely with laser clocks*, ESA bulletin, vol. 122 (May), p. 53, (2005)
- C. Affolderbach, G. Miletì, *Laser optical pumping in Rb vapour-cell atomic clocks*, (Invited Paper) Proceedings of the SPIE, 13th International School on Quantum Electronics "Laser physics and applications", Burgas, Bulgaria, Proc. SPIE, vol. 5830, p. 159, (2005)
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- G. Miletì, C. Affolderbach, *A compact, frequency stabilised laser head for space Rb clocks and wavelength references*, proceedings of the International Conference of Space Optics (ICSO), ESA Special Publication SP-554, p. 619, (2004)
- C. Affolderbach, A. Vuillemin, R. Matthey G. Miletì, *Development of tunable, narrow-band, and frequency stabilised laser heads in Observatoire Cantonal de Neuchâtel*, proceedings of the International Conference of Space Optics (ICSO), ESA Special Publication SP-554, p. 821, (2004)
- C. Affolderbach, C. Andreeva, S. Cartaleva, T. Karaulanov, G. Miletì, D. Slavov, *Light shift reduction in atomic clocks*, in: "8th Intern. Conf. on Lasers and Laser Technologies", SPIE, vol. 5449, 342-349, (2004)
- C. Affolderbach, C. Andreeva, S. Cartaleva, G. Miletì, D. Slavov, *Frequency stability comparison of diode lasers locked to Doppler and sub-Doppler resonances*, in: "Eighth International Conference on Lasers and Laser Technologies" (LTL), SPIE, vol. 5449, p. 396-403, (2004)
- G. Miletì, H. Schweda, S. Murphy, A. Maurissen, *Atomic clocks for Galileo: from research laboratories to industry and space*, ESA Technology Programmes Workshop, Lisbon, Portugal, May 7-9, (2003)
- T. Karaulanov, C. Andreeva, S. Cartaleva, Y. Dancheva, B. Todorov, A. Yanev, S. Jaquet, G. Di Domenico, P. Thomann, G. Miletì, *Light shift and laser sidebands in gas-cell atomic clocks using optical pumping and coherent population trap-ping*, Proc. SPIE, vol. 5137, p. 364, (2003)
- C. Andreeva, S. Cartaleva, G. Di Domenico, S. Jaquet, T. Karaulanov, G. Miletì, P. Thomann, B. Todorov, A. Yanev, *Influence of external parameters on the locking position of a diode laser*, SPIE v. 5226, p. 124, (2003)
- R. Matthey, V. Mitev, G. Miletì, V. Makarov, A. Turin, M. Morandi, V. Santacesaria, *Miniature aerosol Lidar for automated airborne application*, Proc. EOS/SPIE Int. Symposium on Envirosense, (1999), (SPIE , Vol. 4035, Laser Radar Technology and Applications V, 2000)

5. Oral and poster contributions (without proceedings) to international scientific conferences (120)

2024 (1):

P. Griffin, A. Bregazzi, A. Arnold, E. Riis, J. McGilligan, C. Affolderbach, G. Mileti, *Integrated Cold-Atom Microwave References*, invited talk at the IEEE IFCS-EFTF Joint Conference of the IEEE International Frequency Control Symposium and the European Frequency and Time Forum, Taipei, September (2024)

2023 (3):

J. Gressot, G. Mileti, *De l'observatoire astronomique au Laboratoire Temps-Fréquence. Étude, inventaire et patrimonialisation des instruments scientifiques de l'Observatoire de Neuchâtel*, talk at the XLII Scientific Instrument Symposium, Palermo, September (2023)

E. Batori, A. Bregazzi, B. Lewis, C. Affolderbach, P. F. Griffin, E. Riis, G. Mileti, *Progress on the gnot cold-atom clock*, INMAQS (International Network for Micro-fabricated Atomic Quantum Sensors) Workshop, Estes Park – CO – USA, June, (2023)

G. Mileti, *Compact and miniature atomic clocks using hot and cold rubidium atomic vapors*, invited talk at the IEEE IFCS-EFTF Joint Conference of the IEEE International Frequency Control Symposium and the European Frequency and Time Forum, held with ATF, the Asia-Pacific Workshop on Time and Frequency, Toyama, April (2023)

2022 (4):

E. Batori, C. Affolderbach, A. Bregazzi, B. Lewis, P. F. Griffin, E. Riis, G. Mileti, *Recent efforts towards a compact cold atom clock*, INMAQS (International Network for Micro-fabricated Atomic Quantum Sensors) Workshop, Ross Priory, Glasgow - UK, September, (2022)

C. Affolderbach, E. Batori, M. Pellaton, F. Gruet, M. Violetti, Y. Su, A. K. Skrivervik, G. Mileti, *The μ -POP Clock: Demonstration and Stability performance of a Pulsed Optically Pumped Microcell Frequency Standard*, INMAQS (International Network for Micro-fabricated Atomic Quantum Sensors) Workshop, Ross Priory, Glasgow - UK, September, (2022)

G. Mileti, *Vapour cell atomic clocks and the measurement of time*, invited talk at the INMAQS (International Network for Micro-fabricated Atomic Quantum Sensors) Workshop, Ross Priory, Glasgow - UK, September, (2022) *

E. Batori, C. Affolderbach, F. Gruet, Y. Su, M. Violetti, A. K. Skrivervik, and G. Mileti, *Miniature Atomic Clock Using Pulsed Double Resonance on a Micro-fabricated Rubidium Vapor Cell*, oral presentation at the Precise Time and Time Interval (PTTI) Systems and Applications Meeting, January, (2022)

2021 (5):

G. Mileti, *Vapour cell atomic clocks and the measurement of time*, invited talk at the International Symposium "Metrology of Time and Space", Online, October 6-8 (2021)*

G. Mileti, *The measurement of time and vapour cell atomic clocks*, invited talk at the workshop "Time in Quantum Theory: from mathematical foundations to operational characterization", ETH Zürich, August 30 - September 3, (2021)*

G. Mileti, *Vapour cell atomic clocks and the measurement of time*, Hot Atomic Vapor Workshop, Online, march 23 (2021)*

C. Affolderbach, N. Almat, W. Moreno, M. Pellaton, F. Gruet, E. Batori, G. Mileti, *Impact of vapour cell design on long-term stability of compact atomic clocks*, Hot Atomic Vapor Workshop, Online, march 24 (2021)

G. Mileti, *Vapour cell atomic clocks and the measurement of time*, Emerging Trends in Time and Frequency Systems, organized by ISTRAC-ISRO (India), Online, January 12 (2021)*

2020 (1):

G. Mileti, *Vapour cell atomic clocks and the measurement of time*, Hot Atomic Vapor Workshop, Precision Timing in Navigation, organized by Ion – CH, Neuchâtel, September 8, (2020)*

*: also in the frame of the "IEEE Distinguished lecturer program"

2019 (6):

N. Almat, W. Moreno, F. Gruet, C. Affolderbach, G. Milet, *Long-Term Stability Analysis at $< 10^{-14}$ Level of a Highly Compact Vapor-Cell Atomic Clock for GNSS Applications*, talk at the 7th international colloquium on scientific and fundamental aspects of GNSS, Zurich, Switzerland, 4-6 September (2019)

G. Milet, *Atomic clocks for ground and for space*, **Invited talk** at the 7th international colloquium on scientific and fundamental aspects of GNSS, Zurich, Switzerland, 4-6 September (2019)

N. Almat, W. Moreno, F. Gruet, C. Affolderbach, G. Milet, *Long-Term Stability Analysis of a Compact Ramsey-Scheme Vapor-Cell Atomic Clock at 10^{-14} Level*, talk at the Joint Annual Meeting of the Swiss Physical Society and Austrian Physical Society, Zurich, Switzerland, 26–30 August (2019)

G. Milet, *High performance and miniature vapour cell atomic clocks*, **Invited talk** at the Swiss NanoConvention, Lausanne, Switzerland, June 7 (2019)

G. Milet, *Atomic clocks for ground and for space*, **Invited talk** at the 7th international colloquium on scientific and fundamental aspects of GNSS, Zürich, Switzerland, September (2019)

N. Almat, W. Moreno, F. Gruet, C. Affolderbach, G. Milet, *Long-term stability analysis at 10^{-14} level of a highly compact vapour-cell atomic clock for GNSS applications*, talk at the 7th international colloquium on scientific and fundamental aspects of GNSS, Zürich, Switzerland, September (2019)

2018 (3):

C. Affolderbach, W. Moreno, A. E. Ivanov, T. Debogovic, M. Pellaton, A. K. Skrivervik, E. de Rijk, G. Milet, *High-performance Rb atomic clock demonstration using additive manufactured microwave cavity*, talk at the Annual Meeting of the Swiss Physical Society, Lausanne, Switzerland, August 28-31, (2018)

C. Affolderbach, N. Almat, M. Gharavipour, F. Gruet, W. Moreno, M. Pellaton, G. Milet, *Ramsey spectroscopy in vapour-cells for compact high-performance atomic clocks*, **Invited oral presentation** at the 8th International Symposium "Modern Problems of Laser Physics" (MPLP-2018), Novosibirsk, Russia, August 27 - September 1st, (2018)

G. Milet, *Current research in Time & Frequency and next generation atomic clocks*, **Invited oral presentation** at the European Mars Convention, La Chaux-de-Fonds, Switzerland, October 26-28, (2018)

2017 (5):

C. Affolderbach, M. Gharavipour, F. Gruet, W. Moreno, M. Pellaton, G. Milet, *Precision measurements for compact vapor-cell atomic clocks*, invited oral presentation at Photonica, Belgrade, Serbia, (2017)

N. Almat, W. Moreno, M. Pellaton, F. Gruet, C. Affolderbach, G. Milet, *Frequency-doubled laser sources stabilized to Rb-cell references*, Poster at Photonica, Belgrade, Serbia, (2017)

W. Moreno, M. Pellaton, M. Gharavipour, F. Gruet, C. Affolderbach, G. Milet, *Light-shift in pulsed optically pumped Rubidium atomic clock*, Oral presentation at Photonica, Belgrade, Serbia, (2017)

C. Affolderbach, N. Almat, M. Gharavipour, F. Gruet, W. Moreno, M. Pellaton, G. Milet, *Laser-pumped high performance vapor-cell atomic clocks*, Oral presentation at the Annual Meeting of the Swiss Physical Society, Geneva, Switzerland, 21-25 August (2017)

C. Affolderbach, N. Almat, M. Gharavipour, F. Gruet, R. Matthey, W. Moreno, G. Milet, *High performance and miniature laser-pumped vapour-cell frequency standards*, **Invited plenary talk** at the 3rd URSI – Regional Conference on Radio Science 2017, Tirupati, India, March 1-3 (2017)

2016 (5):

C. Affolderbach, M. Gharavipour, F. Gruet, R. Matthey, W. Moreno, G. Milet, *Double Resonance Spectroscopy in Rb Vapour Cells for High-Performance and Miniature Atomic Clocks*, Invited oral presentation at the 7th International Symposium and School Modern Problems of Laser Physics, Novosibirsk, Russia, August 22-28, (2016)

M. Gharavipour, I.S. Radojicic, F. Gruet, C. Affolderbach, A.J. Krmpot, B. M. Jelenkovic, G. Milet, *Light Shifts Studies in CW and Ramsey Double Resonance Vapour Cell Frequency Standards*, Oral #1102, EFTF 2016, 30th European Frequency and Time Forum, York, UK, April 4-7, 2016

M. Gharavipour, A.E. Ivanov, C. Affolderbach, A. Skrivervik, G. Milet, *Microwave Cavity Characterization for Rubidium Frequency Standards*, Poster #1101, EFTF 2016, 30th European Frequency and Time Forum, York, UK, April 4-7, (2016)

A. E. Ivanov, C. Affolderbach, G. Mileti, A.K. Skrivervik, *Study of the Misalignment between Electromagnetic Fields Interacting with Rb Atoms in a Cavity with Losses*, Poster #1072, EFTF 2016, 30th European Frequency and Time Forum, York, UK, April 4-7, (2016)

M. Gharavipour, I. S. Radojicic, F. Gruet, C. Affolderbach, A. J. Krmpot, B. M. Jelenkovic, G. Mileti, *Comparison of relaxation times in a Rb vapor-cell measured with different methods*, Oral #515, Annual Meeting of the Swiss Physical Society, Lugano, Switzerland; August 23-25, (2016)

2015 (8):

P. Berthoud, M. Haldimann, L. Schneller, C. Ducommun, A. Michaud, C. Affolderbach, F. Gruet, S. Abdullah, G. Mileti, M. Stojanovic, P. Kejik, P.-A. Farine, C. Jacq, G. Farine, T. Maeder, P. Ryser, Y. Pétremand, *Quantime: Low Cost Miniature Atomic Clock for Telecom*, Poster #5421, IFCS-EFTF 2015 Joint Conference, Denver, USA, April 12-16, (2015)

K. Masuda, C. Affolderbach, G. Mileti, J.-C. Diels, L. Arissian, *Coherent interaction of intracavity pulses and Rb-87 vapor*. Oral presentation #5184, IFCS-EFTF 2015 Joint Conference, Denver, USA, (2015)

C. Affolderbach, S. Kang, M. Gharavipour, F. Gruet, G. Mileti, *Relaxation times and stability studies for a compact pulsed optically pumped vapor cell clock*, Poster, 8th Frequency Standard and Metrology Symposium, Potsdam, Germany, October 12-16, (2015)

F. Levi, C. E. Calosso, A. Godone, B. François, S. Micalizio, R. Boudot, C. Affolderbach, S. Kang, M. Gharavipour, F. Gruet, G. Mileti, *Pulsed Optically Pumped Rb clock*, Poster, 8th Frequency Standard and Metrology Symposium, Potsdam, Germany, October 12-16, (2015)

M. Gharavipour, S. Kang, F. Gruet, C. Affolderbach and G. Mileti, *Relaxation time measurements in a 25 mm Rb vapor cell for high-performance Rb atomic clocks*, PHOTONICA, Belgrade, (2015)

W. Moreno, F. Gruet, R. Matthey, P. Brochard, S. Schilt, G. Mileti, *Rb-based Stabilized Laser at 1572 nm for CO₂ Monitoring*, PHOTONICA, Belgrade, (2015)

M. Gharavipour, S. Kang, F. Gruet, C. Affolderbach, G. Mileti, *Relaxation time measurements in a buffer-gas Rb vapor cell for high-performance Rb atomic clocks*, Poster # 561, Joint Annual Meeting of the Austrian & Swiss Phys. Societies, Vienna, Austria, September 1-4, (2015)

W. Moreno, F. Gruet, R. Matthey, G. Mileti, *Rb-based Stabilized Laser at 1572 nm for CO₂ monitoring*, Poster # 574, Joint Annual Meeting of the Austrian & Swiss Phys. Societies, Vienna, Austria, September 1-4, (2015)

2014 (5):

Koji Masuda, Matthieu Pellaton, Gaetano Mileti, Ladan Arissian and Jean-Claude Diels, *Push-pull optical pumping with a mode-locked laser*, poster at the European Frequency and Time Forum (EFTF), Neuchâtel, June 23-27, (2014)

R. Matthey, F. Gruet, S. Schilt, G. Mileti, *Compact Rubidium-Stabilized Optical Frequency Comb as Source of Reference Frequencies in the 1.55-micrometer Region*, Annual Meeting of the Swiss Physical Society (SPS), Fribourg, Switzerland, June 30 – July 2, 2014. (poster presentation)

G.-X. Du, A. Horsley, P. Treutlein, M. Pellaton, T. Bandi, C. Affolderbach, G. Mileti, *In situ imaging of the microwave field of a vapor cell atomic clock*, Annual Meeting of the Swiss Physical Society (SPS), Fribourg, Switzerland, June 30 – July 2, 2014. (oral presentation no. 513)

A. Horsley, G.-X. Du, M. Pellaton, C. Affolderbach, G. Mileti, P. Treutlein, *Imaging of Relaxation and Microwave Field Strength in Vapor Cells*, Annual Meeting of the Swiss Physical Society (SPS), Fribourg, Switzerland, June 30 – July 2, 2014. (poster presentation no. 531)

A. Horsley, G.-X. Du, M. Pellaton, C. Affolderbach, G. Mileti, P. Treutlein, *Microfabricated Vapor Cells for Atomic Clock and Microwave Field Sensing Applications*, Young Atom Opticians conference 2013 (YAO 2013), Birmingham, UK, April 08-12, 2013. (oral presentation)

2013 (2):

T. Bandi, C. Affolderbach, C. Stefanucci, F. Merli, A. K. Skrivervik, C. Calosso, G. Mileti, *Compact, High-Performance CW Double-Resonance Rb frequency Standard: present status*, Talk at the joint IEEE International Frequency Control Symposium (IFCS) and European Frequency and Time Forum (EFTF), Prague, July 21-25, (2013)

G.-X. Du, A. Horsley, M. Pellaton, C. Affolderbach, G. Miletì, P. Treutlein, Microwave field imaging using microfabricated vapor cells, DPG Frühjahrstagung, Hannover, Germany, March 18-22, 2013. (oral presentation)

2012 (3):

C. Affolderbach, G. Barwood, S. Bize, K. Bongs, I. Ernsting, B. Faure, P. Gill, O. Grosjean, J. Guéna, K. Jaldehag, S. Kundermann, Ph. Laurent, S. Lecomte, T. Legero, T. Lévêque, P. Lindqvist, M. Lours, D. Massonnet, G. Miletì, A. Nevsky, N. Poli, M. Prevedelli, S. Schiller, H. Schnatz, A. Stefanov, U. Sterr, G. M. Tino, P. Tuckey, S. Webster, *The STE-QUEST cold atoms Rb clock using a comb-based microwave source for fundamental physics in space*, talk at the IEEE International Frequency Control Symposium, Baltimore, USA, May 21-25, (2012)

C. Affolderbach, G. Barwood, S. Bize, K. Bongs, I. Ernsting, B. Faure, P. Gill, O. Grosjean, J. Guéna, K. Jaldehag, S. Kundermann, Ph. Laurent, S. Lecomte, T. Legero, T. Lévêque, P. Lindqvist, M. Lours, D. Massonnet, G. Miletì, A. Nevsky, N. Poli, M. Prevedelli, S. Schiller, H. Schnatz, A. Stefanov, U. Sterr, G. M. Tino, P. Tuckey, S. Webster, *A cold rubidium frequency standard for the fundamental physics mission STE-QUEST*, talk at the European Frequency and Time Forum (EFTF), Gothenburg, Sweden, April 24-27, (2012)

V. Venkatraman, Y. Petremend, C. Affolderbach, G. Miletì, N. de Rooij, H. Shea, *Chip-scale rubidium dielectric barrier discharge lamp for miniature atomic clocks and magnetometers*, Invited talk at the 4th International Symposium on Advanced Plasma Science, Aichi, Japan, March 4-8, (2012)

2011 (11):

G. Miletì, *Études sur Terre et dans l'espace pour la chronométrie de demain*, Swiss Space Days, Neuchâtel, (2011)

M. Pellaton, C. Affolderbach, Y. Petremend, N. de Rooij and G. Miletì, *Study of laser-pumped double-resonance clock signals using a micro-fabricated cell*, Poster at Photonica 2011, III International School and Conference on Photonics, Aug. 29 – Sept. 2, Belgrade, Serbia, (2011)

D. Miletic, C. Affolderbach, T. Bandi and G. Miletì, *AC Stark-shift in Double Resonance and Coherent Population Trapping in Wall-Coated Cells for Compact Rb Atomic Clocks*, Poster at Photonica 2011, III International School and Conference on Photonics, Aug. 29 – Sept. 2, Belgrade, Serbia, (2011)

C. Affolderbach, M. Pellaton, Y. Petremend, N. De Rooij, G. Miletì, *Laser-microwave double-resonance spectroscopy in mm-scale Rb vapour cells for atomic clocks*, talk at the joint annual meeting of the Swiss Physical Society (SPS) and Austrian Physical Society with the Swiss and Austrian Societies for Astronomy and Astrophysics, EPF Lausanne, June 15-17, (2011)

D. Miletic, T. Bandi, C. Affolderbach, G. Miletì, *Double-resonance (DR) and Coherent Population Trapping (CPT) in wall-coated cells for compact Rb atomic clocks*, poster at the 43rd congress of the European group on atomic systems (EGAS), June 28 –July 2, Fribourg, Switzerland, (2011)

T. Bandi, C. Affolderbach, and G. Miletì, *High-Resolution Double Resonance (DR) Spectroscopy of the Clock Transition in ⁸⁷Rb Atomic Vapour*, poster at the 43rd congress of the European group on atomic systems (EGAS), June 28 –July 2, Fribourg, Switzerland, (2011)

R. Boudot, D. Miletic, P. Dziuban, M. Hasegawa, P. Knapkiewicz, J. Dziuban, C. Affolderbach, G. Miletì, V. Giordano and C. Gorecki, *Cs collisional frequency shift measurements in microcells filled with a Ne-Ar buffer gas mixture*, poster at the Joint Meeting of the European Frequency and Time Forum (EFTF) and the IEEE International Frequency Control Symposium (FCS), San Francisco, May 2-5, (2011)

F. Gruet, T. Bandi, G. Miletì, R. Phelan, B. Kelly, J. O'Carroll, J. O'Gorman, *Development and spectral characterisation of Discrete Mode Laser Diodes (DMLDs) emitting at 780 nm for Rubidium atomic clocks*, poster at the European Conference on Lasers and Electro-Optics and the XIIth European Quantum Electronics Conference (CLEO/Europe-EQEC), München, Germany, 22-26 May, (2011)

F. Gruet, L. Bimboes, D. Miletic, C. Affolderbach, G. Miletì, A. Al-Samaneh, D. Wahl, R. Michalzik, *Spectral characterisation of VCSELs emitting at 894.6 nm for CPT-based miniature atomic clocks*, poster at the European Conference on Lasers and Electro-Optics and the XIIth European Quantum Electronics Conference (CLEO/Europe-EQEC), München, Germany, 22-26 May, (2011)

M. Pellaton, Y. Pétremand, C. Affolderbach, N. de Rooij, G. Miletì, *Laser-pumped double-resonance atomic clock using a micro-fabricated Rubidium cell*, talk at the European Conference on Lasers and Electro-Optics and the XIIth European Quantum Electronics Conference (CLEO/Europe-EQEC), München, Germany, 22-26 May, (2011)

2010 (3):

L. Bimboes, F. Gruet, C. Affolderbach, R. Matthey, G. Miletì, A. Al-Samaneh, D. Wahl, R. Michalzik, *Spectral characterization of 894 nm VCSELs for MEMS atomic clocks*, Atelier Arc-et-Senans, September 16-17 (2010)

F. Gruet, T. Bandi, M. Pellaton, C. Affolderbach, R. Matthey, J. Di Francesco and G. Miletì, *Compact stabilized laser heads for frequency standards and spectroscopy*, Workshop on Optical Clocks, Istituto Nazionale di Ricerca Metrologica (INRIM), Torino, Italy December 1 - 3, (2010)

E. Breschi, N. Castagna, S. Knappe, H. Robinson, G. Miletì, A. Weis, J. Kitching, *DROM-spectroscopy in pure paraffin wall-coated cell*, 22nd International Conference on Atomic Physics, ICAP, 25-30 July 2010, Cairns, Australia (2010)

2009 (9):

R. Matthey, C. Affolderbach, E. Breschi, S. Schilt, C. Schori, G. Miletì, *Application potentials of gas-cell atomic clock techniques for optical combs*, 3rd ESA International workshop on optical atomic clocks, ICAP, ESRIN, Frascati, Italy, October 14-16, (2009)

D. Miletic, C. Schori, Y. Petremend, N. De Rooij, G. Miletì, *CPT spectroscopy on miniature rubidium vapour cells*, Joint Annual Meeting of the Austrian Physical Society, Swiss Physical Society, and Austrian Society of Astronomy and Astrophysics, Innsbruck, September 2-4, (2009)

R. Lammegger, E. Breschi, G. Kazakov, G. Miletì, L. Windholz, *Investigations on Coherent Population Trapping resonances in lin//lin configuration*, Joint Annual Meeting of the Austrian Physical Society, Swiss Physical Society, and Austrian Society of Astronomy and Astrophysics, Innsbruck September, 2 - 4, (2009)

T. Bandi, G. Miletì, *Laser and Microwave-Laser Double Resonance Spectroscopy of Alkali Atoms in Wall-coated cells*, Joint Annual Meeting of the Austrian Physical Society, Swiss Physical Society, and Austrian Society of Astronomy and Astrophysics, Innsbruck September, 2 - 4, (2009)

D. Miletic, C. Affolderbach, G. Miletì, *AC Stark shift and temperature shift in laser pumped Rubidium frequency standards*, Joint Annual Meeting of the Austrian Physical Society, Swiss Physical Society, and Austrian Society of Astronomy and Astrophysics, Innsbruck September 2 - 4, (2009)

D. Miletic, C. Affolderbach, F. Gruet, M. Durrenberger, G. Miletì, *Progress on the optimization of a compact laser-pumped Rubidium frequency standard*, Proceedings of the Joint Meeting of the European Frequency and Time Forum (EFTF) and the IEEE International Frequency Control Symposium (FCS), Besançon, April 20-24, (2009)

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Organisation du cycle de Cycle de conférences « Temps, sciences et société », en collaboration avec l'Institut d'histoire de l'Université de Neuchâtel, l'association pour la création d'un Musée de la science et de la technique à Neuchâtel (AMSTN) et la Fondation Suisse pour la recherche en microtechnique (FRSM) :

<http://www.unine.ch/gaetano.mileti/home/cycle-de-conferences.html>

Membre du Comité d'organisation des conférences MICRO :

MICRO-22, Les Microtechnologies au cœur du sport, October 2022

<https://www.microcity.ch/actualites/micro22-les-microtechnologies-au-coeur-du-sport>

<https://memento.epfl.ch/event/micro-22-les-microtechnologies-au-cur-du-sport/>



Editions précédentes:

MICRO-18, Big data sous la loupe, Neuchâtel, August 2018,

MICRO-16, Transition industrielle, Neuchâtel, September 2016

MICRO-12, Produire en Suisse, Neuchâtel, August 2012

G. Mileti, *Le métier de physicien*, Rencontre avec des professionnels, organisée par le Lycée français de Bienne, 21 mars 2017

G. Mileti, *Recherche scientifique et mesure du temps*, dans le cadre de «Ingch – Engineers Shape our future», Semaine technique et informatique du Lycée Blaise Cendrars of La Chaux-de-Fonds, 30 mai 2016 et du Lycée Denis-de-Rougemont of Neuchâtel, 24 juin 2016

(December 2024)