

PERSONAL INFORMATION

Giovanni Daniele Rovera

📍 1170 Chemin de la Tour du Pey Blanc, 13090 Aix-en-Provence, France

📞 +33 668030556 📠 +33 442641042

✉ daniele.rovera@tfsol.eu

Gender Male | Date of birth 22 February 1950 | Nationality Italian

WORK EXPERIENCE

August 2025 – November 2025

Short term guest researcher

National Institute of Standard and Technology, 235 Broadway, Boulder CO, USA

Business or sector Research and Development

April 2020 – Present

Senior consultant in time and frequency

Time & Frequency Solutions

Micro enterprise located in:

1170 Chemin de la Tour du Pey Blanc, 13090 Aix-en-Provence, France.

Business or sector Research and Development

December 1989 – March 2020

Researcher in time and frequency metrology

LNE (detached to SYRTE/OP, formerly BNM detached to SYRTE/OP).

61 Avenue de l'Observatoire, 75014 Paris, France.

- Time scales.
 - Precise time and frequency transfer and comparison.
 - Development and evaluation of primary Caesium frequency standards.
 - Development of instrumentation and electronic devices.
 - Signal theory applied to metrology.
 - Seconded appointed to the BIPM Time Department.
- Formerly on same position:
- Responsible for the frequency measurement / synthesis chain, based on a femtosecond laser, linking the microwave frequency range to the near-infrared and visible frequency range.
 - Responsible for the frequency measurement / synthesis chain, based on far-infrared lasers, linking the microwave frequency range to the mid-infrared frequency range.
 - Development of secondary optical frequency standards and length standards.
 - Accurate spectroscopy for metrological purposes.

Business or sector Research

1985–1989

Owner of an individual enterprise

Theotek 24 via Monviso, 12034 Paesana (Italy)

Realization of instrumentation for aerial sports and consultant in metrology.

Business or sector Manufacturing and Consulting

1981 – 1984

Research grant and Independent Consultant

Istituto Elettrotecnico Nazionale G. Ferraris (now INRIM): 115 Strada delle cacce, 10100 Torino (Italy)

Research in time and frequency metrology during a 2 year grant and several short consulting contracts.

Business or sector Research and Development

EDUCATION AND TRAINING

1981–1982

Abilitazione all'esercizio della professione di ingegnere

Politecnico di Torino Corso Duca degli Abruzzi, 10100 Torino, Italy
State certification to practice engineering

1970–1981 Laurea di Dottore in Ingegneria Elettronica

Politecnico di Torino Corso Duca degli Abruzzi, 10100 Torino, Italy
Electronics, microwaves, control theory, communications theory.

PERSONAL SKILLS

Mother tongue Italian

Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
French	C2	C2	C2	C2	C1
English	C1	C2	C1	C1	C1
Occitan	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills Good ability to adapt to multicultural environments, gained through research collaboration in Europe, USA, China and Brazil. Participation to international committees and working groups.

Organizational / managerial skills Good experience in project management.

Job related skills

- Development of electronic devices.
- Development of laser systems.
- Development of time/frequency standards.
- Knowledge of ISO/IEC standard 17025, technical expert COFRAC, SEMAC and TUNAC

Digital competences

SELF-ASSESSMENT				
Information Processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Independent user	Independent user	Independent user

[Digital competences - Self-assessment grid](#)

Computer skills Linux, C, Fortran, Latex, LabView

Other skills Glider pilot license. Hang gliding (coach of Italian team at the world championship in 1989), Mountain trekking, climbing.

Driving license BE,CE,DE

ADDITIONAL INFORMATION

The study period overlaps with activity in the family company, mainly as a truck driver, operator of snow blowers and excavators.

Selected Publications

- Thai:2024 T. T. Thai, D. Rovera and I. Sesia, “Update on TWSTFT activities at INRiM Time and Frequency Laboratory,” 2024 4th URSI Atlantic Radio Science Meeting (AT-RASC), Meloneras, Spain, 2024, pp. 1-4, doi: 10.46620/URSIATRASC24/RHCW3492.
- Burger:2022 J. P. Burger, R. Siebrits, R. R. G. Gamatham, G. van Tonder, G. Adams, V. van Tonder, Z. Ramudzuli, S. Buchner, M. Abgrall, P. Pierre Uhrich, and D. Rovera, “Design, implementation, and qualification of high-performance time and frequency reference for the MeerKAT telescope,” *Journal of Astronomical Telescopes, Instruments, and Systems*, vol. 8, no. 1, pp. 1 – 33, 2022.
- F. Riedel, et al, “Direct comparisons of European primary and secondary frequency standards via satellite techniques,” *Metrologia*, vol. 57, p 045005, 2020
- G. D. Rovera, M. Siccaldi, S. Römisch, and M. Abgrall, “Time delay measurements: estimation of the error budget,” *Metrologia*, vol. 56, p. 035004, May 2019.
- E. Samain, G. D. Rovera, J. Torre, C. Courde, A. Belli, P. Exertier, P. Uhrich, P. Guillemot, R. Sherwood, X. Dong, X. Han, Z. Zhang, W. Meng, and Z. Zhang, “Time transfer by laser link (T2L2) in noncommon view between Europe and China,” *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, vol. 65, pp. 927–933, June 2018.
- P. Defraigne, W. Huang, B. Bertrand, and D. Rovera, “Study of the GPS inter-frequency calibration of timing receivers,” *Metrologia*, vol. 55, pp. 11–19, dec 2017.
- G. D. Rovera, S. Bize, B. Chupin, J. Guéna, P. Laurent, P. Rosenbusch, P. Uhrich, and M. Abgrall, “UTC(OP) based on LNE-SYRTE atomic fountain primary frequency standards,” *Metrologia*, vol. 53, no. 3, p. S81, 2016.
- P. Exertier, E. Samain, C. Courde, M. Aïmar, J. M. Torre, G. D. Rovera, M. Abgrall, P. Uhrich, R. Sherwood, G. Herold, U. Schreiber, and P. Guillemot, “Sub-ns time transfer consistency: a direct comparison between GPS CV and T2L2,” *Metrologia*, vol. 53, no. 6, p. 1395, 2016.
- G. D. Rovera, M. Abgrall, C. Courde, P. Exertier, P. Fridelance, P. Guillemot, M. Laas-Bourez, N. Martin, E. Samain, R. Sherwood, J.-M. Torre, and P. Uhrich, “A direct comparison between two independently calibrated time transfer techniques: T2L2 and GPS common-views,” *Journal of Physics: Conference Series*, vol. 723, no. 1, p. 012037, 2016.
- G. D. Rovera, J.-M. Torre, R. Sherwood, M. Abgrall, C. Courde, M. Laas-Bourez, and P. Uhrich, “Link calibration against receiver calibration: an assessment of GPS time transfer uncertainties,” *Metrologia*, vol. 51, no. 5, p. 476, 2014.
- J. A. Stone, J. E. Decker, P. Gill, P. Juncar, A. Lewis, G. D. Rovera, and M. Viliessid, “Advice from the CCL on the use of unstabilized lasers as standards of wavelength: the helium-neon laser at 633 nm,” *Metrologia*, vol. 46, no. 1, pp. 11–18, 2009.
- G. D. Rovera, “Low frequency noise optically pumped FIR laser with frequency stabilized pump,” *Optics Comm.*, vol. 143, pp. 247–251, 1997.
- A. Godone, A. De Marchi, G. D. Rovera, E. Bava, and G. Giusfredi, “Frequency measurement of 3P1 - 3P0 fine structure transition of 24Mg,” *Physical Review A*, vol. 28, pp. 2562–2564, Oct. 1983.

Honours and awards Prix LNE de la Recherche 2017