

# Massimo Tinto

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## Education:

- ✚ Italian Degree in Physics, University of Genoa, Italy, 1982.
- ✚ Part III in Applied Mathematics & Theoretical Physics, University of Cambridge, England, 1984.
- ✚ Ph.D., University College, Cardiff, Wales, (U.K.), 1987.
  - Thesis: “Theoretical Aspects of Gravitational Wave Detection”,  
Advisor: Professor Bernard F. Schutz.

## Professional Experience:

- ✚ Visiting Professor at the National Institute for Space Research, Sao Jose’ dos Campos, Sao Paulo, Brazil, 06/01/2019 - 05/31/2020
- ✚ Interim Scientist, Jet Propulsion Laboratory, Pasadena, California, 10/01/2017 - present
- ✚ Research Scientist, Center for Astrophysics and Space Sciences, University of California, San Diego, 10/10/2016 – present.
- ✚ Visiting Professor at the National Institute for Space Research, Sao Jose’ dos Campos, Sao Paulo, Brazil, 01/01/2012 - 12/31/2012.
- ✚ Principal Scientist, Jet Propulsion Laboratory, 2007 – 2016 (Equivalent to a professorship at a leading US university).
- ✚ University Research Affairs Office, Jet Propulsion Laboratory, Manager, 2007 – 2008
- ✚ Visiting Associate, LIGO Research Laboratory, Caltech, 2001 – 2010
- ✚ JPL Astrophysics & Gravitation Group, Jet Propulsion Laboratory, Supervisor, 2004 – 2007
- ✚ Team Leader of the JPL Relativity & Gravitation Group, Jet Propulsion Laboratory, 2003 – 2004
- ✚ Member, LISA Mission Definition Team, 1999 – 2001
- ✚ CASSINI Radio Science System Engineer, Jet Propulsion Laboratory: onboard instrument and DSN Ka-Band upgrade project 1991 - 2001.
- ✚ Senior Engineer, and DSN Frequency & Timing System Engineer, Jet Propulsion Laboratory, 1991-2001.
- ✚ Systems Telecom leader in the TEAM X and TEAM Z projects, Jet Propulsion Laboratory, 1995 – 2001.

## Achievements, Grants, Awards and Distinctions:

- ✚ 102 refereed articles, 50+ non-refereed publications in conference proceedings, and several internal JPL technical publications.
- ✚ Visiting Professorships at INPE (Sao Jose’ dos Campos, SP) funded by the Brazilian Research Agency FAPESP.
- ✚ Principal Investigator on a JPL Topic Research and Technology Development grant (2013 – 2016) to develop a new gravitational wave mission concept that relies on off-the-shelf satellites. The overall budget of this grant was US\$582,500.
- ✚ Principal Investigator on a research grant funded by the NASA Planetary Instrument Definition & Development Program (PIDDP) office (2007 - 2009). The budget of this grant was US\$ 540,000. This proposed research focused on the development of a new onboard microwave instrument for significantly improving the quality of radiometric data measured during planetary spacecraft Radio Science Occultations.
- ✚ Principal Investigator on a research grant funded by the NASA Beyond Einstein Foundation Science (BEFS) program (2006 - 2008). The budget of this grant is US\$ 670,000. The research proposed addressed several data analysis problems relevant to the LISA mission.
- ✚ Principal Investigator on a research grant supported by the NASA Office of Space Science (OSS) (2003 - 2005). The budget of this grant was US\$ 720,000. The research proposed addressed

several problems relevant to the LISA mission in the area of Time-Delay Interferometry. This data analysis technique, which resulted from my work sponsored by previous NASA grants, has become part of the baseline design of the Laser Interferometer Space Antenna (LISA) mission.

- ✚ Principal Investigator on a research grant funded by the NASA Office of Space Science (OSS) (2000 - 2003). The budget of this grant was US\$ 300,000.
- ✚ Principal Investigator on a research grant supported by the NASA Office of Space Science (OSS) (1996 - 1999). The budget of this grant was US\$ 500,000.
- ✚ Member of the NSF Gravity Program Review Panels, 2008 - 2012.
- ✚ Referee for the journals of the American Physical Society (Physical Review D, Physical Review Letters), the IOP journals (Classical and Quantum Gravity, Astrophysical Journal, Astrophysical Journal Letters), and Springer (General Relativity and Gravitation), 1991 – present.
- ✚ 2004 – NASA Space Act Award on Time-Delay Interferometry.
- ✚ 2003 – NASA Honor Award on Time-Delay Interferometry.
- ✚ 2003 – NASA Group Achievement Award for the development and implementation of the new Deep Space Network Frequency and Timing Subsystem.
- ✚ 2002 – NASA Award for the implementation of the Deep-Space Network Ka-Band Radio capabilities in support of the CASSINI Radio Science Experiments.
- ✚ 2002 – One NASA Brief Technology Award for a publication describing a new technique for significantly improving the phase and amplitude sensitivity of Spacecraft Radio Occultation measurements.
- ✚ 1999 - Three NASA Brief Technology Awards for three publications describing new mission designs for space-based detectors of gravitational radiation.
- ✚ National Research Council fellowship at the Jet Propulsion Laboratory, to work on spacecraft Doppler tracking, 1989 –1991. Supervisor: Dr. Frank B. Estabrook.
- ✚ National Science Foundation fellowship at the California Institute of Technology, under contracts AST 85-14911 and AST 88-17792, 1987 – 1989. Supervisor: Professor Kip S. Thorne.