

## PERSONAL INFORMATION

## Mauro Messerotti

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Gender M | Date of birth 29/07/1954 | Nationality(-ies) Italian

## WORK EXPERIENCE

1987 - present

**Researcher**

INAF – Osservatorio Astronomico di Trieste

2001 - present

**Adjunct Professor and Research Affiliate**

Dipartimento di Fisica dell'Università di Trieste

Courses and Didactic Activities:

- Course on Methods of Image Processing for the Bachelor of Science (Physics) Degree;
- Course on Meteorology and Climatology of Space for the Master of Science (Physics) Degree;
- Course on Physics of Space-Geospace Interactions for the PhD (Physics) Degree;
- Co-Supervisor of 4 theses for BSc (Phys.) (4 year curriculum) and 2 theses for the Bachelor of Electronic Engineering; Supervisor of 1 thesis for BSc (Phys.), 9 theses for the BSc (Phys.) and 7 theses for the MSc (Phys.).

1995, 1998

**Visiting Professor**

Karl-Franzens University  
Graz (Austria)

1997, 1999, 2003

**Co-Director and Lecturer**

Advanced Schools on Solar Physics  
Kanzelhöhe (Austria)

2006, 2010

**Co-Director and Lecturer**

ICTP – Advanced Schools on Space Weather  
Trieste (Italy)

2007 – 2011

**Research Associate**

Project on GLAST/FERMI  
National Institute for Nuclear Physics (INFN), Trieste Division

21 – 22 June 2010

**Invited Speaker**

Meeting on “Improving Our Vision IV – Linkages and Opportunities”  
Eisenhower Center for Space and Defense Studies, London, UK

- 28 – 29 June 2011 **Invited Speaker and Panellist**  
Meeting on “Improving Our Vision V – Opportunities and Applications”  
Eisenhower Center for Space and Defense Studies, SES, Chateau De Betzdorf, Luxemburg
- 2013 – present **Invited Professor**  
Space Weather School for Engineers  
Leuven University, Belgium
- 2014 – present **Co-founder**  
PicoSaTs s.r.l.  
Area Science Park (Trieste, Italy); <http://picosats.eu/>
- 2015 – present **Director and Lecturer**  
NATO STO Lecture Series on "Space Domain Effects on NATO Operations"
- 2015 – present **Expert and Reviewer of the European Commission**  
FP7 and H2020 projects in the fields of data handling and space weather
- 2016 – present **Peer Reviewer**  
MIUR (Ministry for Education, University and Research)–DAAD (German Academic Exchange Service) Joint Mobility Program
- 2016 – present **Peer Reviewer**  
ANVUR (National Agency for the Evaluation of the University System and Research) VQR (Evaluation of Research Quality) 2011–2014
- 2016 – present **Peer Reviewer**  
Research Councils UK (RCUK)
- 2016 – present **Research Associate**  
Project HALCORD  
National Institute for Nuclear Physics (INFN), Trieste Division
- 4 – 6 October 2016 **Panellist**  
JAPCC Conference on "Preparing NATO for Joint Air Operations in a Degraded Environment"  
Joint Air Power Competence Centre, Essen, Germany
- 2017 – present **Senior Advisor for Space Weather**  
Science Directorate  
National Institute for Astrophysics (INAF), Rome, IT
- 2017 – present **Member**  
European Science Foundation/European Space Sciences Committee  
Assessment and Consolidation Working Group on Space Weather

## EDUCATION AND TRAINING

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- 1986 **Magister Philosophiae (Astrophysics)**  
International School for Advanced Studies, Trieste (Italy)  
Marks 30 over 30
- 1981 **Laurea in Physics (Doctor in Physics)**  
Department of Physics, Trieste University  
Marks 110 over 110 (Honours)

## 1972 High School Diploma (Classical Studies)

Liceo Ginnasio Dante Alighieri di Trieste

Marks 58 over 60

### PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
German	A2	A2	A2	A2	A2
Spanish	A2	A2	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user  
Common European Framework of Reference (CEF) level

Technical/Scientific Skills

Solar radio physics and applications to space weather monitoring; advanced data handling; space experiments; military applications of space weather.

Organisational/Managerial Skills

- Management of various working groups in the framework of Projects of Relevant National Interest (PRIN) and research project funded by the Italian Space Agency (ASI) with special attention to the SOHO mission and its payload UVCS (UltraViolet Coronagraph Spectrometer) for the study of the solar corona;
- Management and co-management, as expert on advanced data handling, of the Italian teams participating in the projects EC FP6 EGSO (European Grid of Solar Observations), FP7 HELIO (Heliophysics Integrated Observatory) and CASSIS (Coordination Action for the Integration of Solar System Infrastructures and Science), funded by the European Commission;
- Coordination of the Basovizza Observing Station operated by INAF-Astronomical Observatory of Trieste, where the Trieste Solar Radio System (TSRS) has been operated since 1966, and management of its complete automatization in 2000 for radio data feeding to the European Space Weather Network di ESA (SWENET).

## International Collaborations

In the field of science and applications of space weather he has participated in various international projects as vice-chair, and leader and co-leader of working groups, like EC COST Action 724 *Developing the scientific basis for monitoring, modelling and predicting Space Weather* (2003-2007), and EC COST Action ES0803 *Developing Space Weather products and services in Europe* (2008-2012).

From 2009 to 2010 he has acted as Scientific Secretary of the NATO SCI-229 Exploratory Team *NATO Operations and Space Situational Awareness*, in 2011-2015 as Chair of NATO SCI-229 Task Group *Space Environment Support to NATO SSA*, in 2013 as Member of NATO SCI-238 Specialists Meeting *NATO Space Capability Preservation: A Day Without Space*, in 2014 as Technical Team Member of NATO SCI-268 Specialists Meeting *NATO Space: Science and Technology Developments to Enhance Resilience and Effectiveness of NATO Operations*, in 2014-2015 as Member of SCI-003 Exploratory Team *Systems Integrations and Data Fusions Concepts to Support a Common NATO Space Situational Awareness Operating Picture*, and in 2015-2016 Director of NATO SCI-285 Lecture Series *Space Domain Effects on NATO Operations*.

He has been Scientific Discipline Representative for Space Weather in SCOSTEP (Scientific Committee on Solar-Terrestrial Physics) from 2008 to 2015, National Coordinator in ISWI (International Space Weather Initiative), Chair of Programme Committee of the European Space Weather Week, Member of Steering Board of ESA Space Weather Working Team, National Representative in the Interprogramme Coordination Team on Space Weather of the World Meteorological Organisation (WMO) as consultant for space weather of the Italian Permanent Representative, and Member of the NATO Bi-Strategic Commands Space Working Group (NATO BiSCSWG).

Associate Scientist of the payload UVCS of spacecraft ESA/NASA SOHO, he is Co-Investigator of the payload METIS of spacecraft ESA Solar Orbiter and responsible of the METIS data archiving.

Since 2000 he has been member of the Space Weather Working Team (SWWT) of the European Space Agency (ESA) and since 2011 he has been member of the SWWT Steering Board.

Since 2012 he has been member of the NATO Bi-Strategic Command Working Group on Space.

Since 2014 he has been Chair of the Programme Committee of the European Space Weather Week Conference and INAF representative in the Interprogramme Coordination Team on Space Weather (ICTSW) of the World Meteorological Organisation (WMO) until 2016.

In 2017 he has been co-opted as member of the ESF/ESSC Assessment and Consolidation Working Group on Space Weather.

## Professional Associations

He has been member of the following professional associations: Società Astronomica Italiana (SAIt), Società Italiana di Fisica (SIF), European Physical Society (EPS), European Geosciences Union (EGS), American Geophysical Union (AGU), International Union of Radio Science (URSI), International Astronomical Union (IAU).

## Stages

At the Department of Physics of the Trieste University for the high school students in the Academic Years from 2003 to 2016.

## Refresher Courses on Astronomy

From 1992 to present at various institutions and schools, among which in 2011, 2012 e 2015 for the Lions in Trieste.

## In-Depth Courses on Astronomy

In 1999-2007 at the Liceo Ginnasio "Dante Alighieri" in Trieste; in 2002 and 2003 for UNESCO-Trieste.

## Outreach Activities (Popular Seminars for the Public and the Schools)

More than 700 events:

- Courses on Astronomy, Computer Science and Local Culture at the University of the Third Age of Trieste from 1983 to present;
- Seminars for the Popular University of Trieste at the Italian speaking Communities and Schools in the Istria region (Slovenia and Croatia) from 1982 to present;
- Popular lectures for the general public organised by various interest groups and cultural organisations.

## Publications

Author and co-author of more than 200 scientific publications, he is co-founder and editor of the Journal of Space Weather and Space Climate (EDP Sciences, Paris, France; <http://www.swsc-journal.org/>).

The complete list of publications is available at the URL <https://scholar.google.it/citations?user=KoxWYckAAAAJ&hl=en>.