

CONGRESSO " ICARA 2018"

CONVEGNO NAZIONALE RADIOASTRONOMIA AMATORIALE

IARA

ASSOCIAZIONE ASTRONOMIA ISAAC NEWTON

COMUNE DI SANTA MARIA A MONTE

26-27-28 OTTOBRE 2018 OSSERVATORIO ASTRONOMICO DI TAVOLAIA

CONFERENZE PUBBLICHE , accesso libero.

Venerdì 26 Ottobre

21:30 Conferenza pubblica "Da Newton al SETI" di Claudio Maccone

SETI Permanent Committee Chair, IAA – International Academy of Astronautics



Abstract

: "Da Newton al SETI Le derivate e gli integrali, capiti per la prima volta da Newton dopo il 1666, ma pubblicati per la prima volta da Leibniz rispettivamente nel 1684 e 1686, sono alla base di tutta la scienza moderna. Senza di essi non avremmo le

equazioni di Maxwell (1864) ne` quelle di Einstein (1915). Queste conquiste fondamentali verranno spiegate nella prima parte della conferenza. Ma poi si fara` un salto di un altro secolo per passare al SETI, l'attuale ricerca di altre Civiltà (ExtraTerrestri) nello spazio. Noi non sappiamo nulla su di esse. Ma e` gia` stato possibile creare una teoria matematica, detta "Evo-SETI" (Evoluzione e SETI), che riassume in poche equazioni statistiche tutta l'evoluzione della vita sulla Terra da 3,5 miliardi di anni fa (RNA) fino agli uomini di oggi. Infine estropoleremo queste equazioni nel futuro per capire a che punto si trovi l'evoluzione verso la vita sopra gli innumerevoli pianeti extrasolari (esopianeti) che stanno intorno a noi.

CURRICULUM VITAE AND SCIENTIFIC ACTIVITY :

Dr. Claudio MACCONE, Ph. D.

<http://www.maccone.com/>

Born in Torino (Turin), Italy, February 6, 1948.

1972, March 25. Obtained his first degree ("Laurea") in Physics at the University of Turin with the top mark of 110 points out of 110 and "praise" ("lode").

1974, March 27. Obtained a second degree ("Laurea") in Mathematics at the University of Turin again with the top mark of 110 points out of 110 and "praise" ("lode").

1974, October 1. Awarded a "Council of Europe Higher Education Scholarship" by the British Council, enabling him to read for a Ph. D. at the Department of Mathematics of the University of London King's College. There he obtained his Ph. D. on September 24, 1980. His thesis embodied the Karhunen-Loeve eigenfunctions of the power-like time-rescaled Brownian motion, later published in several papers.

1977, June 2. Awarded a Fulbright scholarship enabling him to study and reside in New York City. There he researched the theory of stochastic processes at the Department of Electrical Engineering of the Polytechnic Institute (now Polytechnic University) of New York.

1985, September 19. Joined the Space Systems Group of Aeritalia (now Alenia Spazio), in Turin, as a technical expert for the design of artificial satellites. At Alenia, he is involved in the design of space missions like the

Quasat satellite for radioastronomy, the Tethered Satellite flown by the U.S. Space Shuttle in 1992 and 1996, the design of a Solar Sail to reach Mars while being pushed by sunlight, etc.

1993, May 30. Submitted a formal M3 Proposal to ESA for the design, construction and launch of the "FOCAL" space mission. This spacecraft/antenna is intended to be launched outside the solar system to the distance of 550 Astronomical Units (3.17 light days) to exploit the huge radio magnification provided by the gravitational lens of the Sun, as predicted by general relativity.

1994, October. His first book was published in the United States by IPI Press. Entitled "Telecommunications, KLT and Relativity" (ISBN 1-880930-04-8).

1997, October 5. Elected "Corresponding Member" of the International Academy of Astronautics (IAA) in the Class of the Engineering Sciences.

1998, February. His second book was published in the United States by IPI Press. Entitled "The Sun as a Gravitational Lens: Proposed Space Missions" (ISBN 1-880930-10-2).

1999, October 3. His second book (on the Sun's gravity lens and space missions) was awarded the "1999 Book Award for the Engineering Sciences" by the International Academy of Astronautics.

2000, October. Elected Co-Vice Chair of the SETI Committee of the International Academy of Astronautics and appointed Coordinator of the IAA Cosmic Study on the "Lunar Farside Radio Lab".

2001, September 2. Asteroid 11264 was named "Claudiomaccone" in his honor by the International Astronomical Union (IAU). The relevant IAU motivation spells: "Claudio Maccone (b. 1948), an Italian scientific researcher and technical expert at the Alenia Spazio in Turin, has participated in the design of some scientific space missions and submitted a proposal for a space mission to exploit the radio magnifications provided by the gravitational lens of the Sun" (IAU Minor Planet Circulars 43382 and 54279). Data about this asteroid are found at the NASA site <http://ssd.jpl.nasa.gov/sbdb.cgi?sstr=11264;orb=1>

2001, September 30. Elected "Full Member" of the International Academy of Astronautics.

2002, April 27. Awarded the "Giordano Bruno Award" by the SETI League "for technical excellence in the service of SETI", as described at the web site <http://www.setileague.org/awards/brunowin.htm>.

2004, December 30. Early retirement from Alenia Spazio gave him full time and freedom for research.

2008, September 22-26. Organized the international SETI conference "First IAA Symposium on Searching for Life Signatures" at UNESCO in Paris, site: <http://www.iaaseti.org/searchingforlife.htm> .

2009, March. His new 400-pages technical book entitled "Deep Space Flight and Communications" was published by Praxis-Springer, web site: <http://www.springer.com/978-3-540-72942-6> .

2010, July 1. He was named Technical Director of the International Academy of Astronautics for Scientific Space Exploration, web site: <http://iaaweb.org/content/view/170/286/> .

2012, September. His new 724-pages technical book entitled "Mathematical SETI" was published by Praxis-Springer, web site: <http://rd.springer.com/book/10.1007/978-3-642-27437-4/page/1> .

2012, October 3. He was elected Chair of the IAA SETI Permanent Committee (succeeding Dr. Seth Shostak of the SETI Institute) for the next 5 years (2012-2017), web site: <http://www.setileague.org/iaaseti/>.

Has published nearly 100 scientific and technical pa
