

REPORT to the IAA

5TH IAA “SEARCH FOR LIFE SIGNATURES” SYMPOSIUM **Held at UNESCO, Paris, France, on March 20-21, 2014**

By Dr. Claudio Maccone
IAA Director for Scientific Space Exploration
and Chair, IAA SETI Permanent Committee

1. INTRODUCTION

In the days of Thursday, March 20, 2014 (afternoon only) and Friday, March 21, 2014 (full day), the Fifth IAA “Search for Life Signatures” Symposium was held in Paris, France, at UNESCO, the United Nations Cultural and Scientific Organization. The IAA web site of this event is <http://iaaweb.org/content/view/555/739/>. Sponsors of this event were jointly the IAA, ASTRON (the Netherlands Institute for Radio Astronomy) and RadioNet3 (a Radio Astronomy Project sponsored by the European Commission). The Symposium was attended by about forty participants: SETI and astrobiology scientists, space experts, space lawyers, space artists and journalists from Europe, North and South America, Asia.

Here below is the “official picture” of the Symposium Attendees shot in the afternoon of Friday, March 21, 2014 at UNESCO. Some of the Participants are unfortunately missing from this picture.



Some of the most distinguished astronomers and radio-astronomers in the world attended: among them,

- 1) Mike Garrett (The Netherlands), Director of ASTRON, with the white shirt in the front row, fourth from the right.
- 2) Geoff Marcy (USA), whose head is smiling “above the other heads” just in the very last row, second from the left.
- 3) Leonid Gurvits (with Jive, The Netherlands), the gentleman in the second row, just in front right of Geoff Marcy.

They were the three INVITED SPEAKERS to the Symposium. Fourteen more Presenters gave their Talks on Friday, March 21, according to the Symposium Final Program that is listed at the end of this Report to the IAA.

The Opening Ceremony of the Symposium was held on Friday, May 21, as shown in the picture below:

From the left: Madhavan Nair (India), President of the IAA, Jean-Michel Contant (France), Secretary General of the IAA, Lidia Brito (Brazil), UNESCO Director of Division of Science Policy & Capacity Building (SC/PCB), Mike Garrett (The Netherlands) – Director of ASTRON, Claudio Maccone (Italy) – IAA Director for Scientific Space Exploration and Chair, IAA SETI Permanent Committee, also INAF Associate. In front of him, Stelio Montebugnoli (Italy), formerly Director of the Medicina Radio Telescopes.



2. MEETING OF THE IAA SETI PERMANENT COMMITTEE HELD IN THE AFTERNOON OF THURSDAY, MAY20, 2014, AT UNESCO IN PARIS

The SETI Permanent Committee of the IAA was established in 1971. Its mission is to provide a forum for the SETI scientists from all over the world where they can meet and discuss progress in the field of SETI. It currently has about forty Members, who are elected by the already existing Members by virtue of a peer review process. Since October 3rd, 2012, the SETI Permanent Committee of the IAA is chaired by Dr. Claudio Maccone of Italy, with Dr. H. Paul Shuch of the USA as Co-Vice Chair. A second position of Co-Vice Chair is currently vacant, since the relevant candidate must be at least a Corresponding Member of the IAA and to be so elected may take a long time. Dr. Mike Garrett, Director of ASTRON in the Netherlands and currently an Applicant for the position of IAA Corresponding Member, is so elected might possibly occupy the vacant position of Co-Vice Chair of the IAA SETI Permanent Committee.

In the years 1971-2013, the IAA SETI Permanent Committee only met once a year during the International Astronautical Congress, wherever it was held. This only-once-per-year Meeting clearly slowed down the Committee activity, hampering progress in the election of new Members and in keeping up with the fantastic progress in radio astronomy technology that opened up SETI to more and more new generations. To cope with that, the current Committee Chair decided for the first time to hold a second Committee Meeting on March 20, 2014, in Paris, just in the afternoon prior to the Fifth IAA Symposium on Searching for Life Signature, at the same UNESCO venue in Paris.

The RECORDINGS of the IAA SETI Permanent Committee Meeting held in Paris in the afternoon of March 20, 2014, may be freely downloaded from the web site http://www.activeseti.org/paris2014/IAA_SETI_PC_recs.zip . The Meeting lasted over two hours and its main results were:

- 1) The creation of a new Sub-Committee devoted to study of the History of SETI.
- 2) The creation of a new Sub-Committee devoted to the SETI Protocols.

The next Meeting of the IAA SETI Permanent Committee will be held during the IAC in Toronto, probably on October 2nd.

UNESCO - Division for Science Policy and Capacity Building (SC/PCB)

Fifth IAA Search for Life Signatures Symposium, March 20th-21st, 2014.

PROGRAM

Thursday, March 20th, 15:30-17:50

**15:30 - 17:50 PUBLIC MEETING of the
UNESCO - SETI PERMANENT COMMITTEE OF THE IAA,
OPEN to all interested Persons !**

Chair: Claudio Maccone, IAA SETI Permanent Committee Chair, since 2012.

Friday, March 21st, 9:00-17:50

Opening: First Morning Session

Friday, March 21st, 9:00 - 11:00

Chairs: Jean-Michel Contant, IAA, Claudio Maccone, IAA & INAF, and Mike Garrett, ASTRON

		IAA Paper #
9:00 – 9:10	Welcome to Participants , Claudio Maccone, IAA & INAF, Italy	IAA-P14-01
9:10 – 9:20	Welcome to Participants , Lidia Brito, UNESCO – Director of Division of Science Policy & Capacity Building (SC/PCB)	IAA-P14-02
9:20 – 9:30	Welcome to Participants , Mike Garrett, ASTRON, The Netherlands	IAA-P14-03
9:30 – 9:40	IAA and SETI: Fifty Years of Scientific Research , Madhavan Nair, President of the IAA, India	IAA-P14-04
9:40 – 10:10	INVITED TALK: SETI, Big Data and the next generation of Radio Telescopes Michael A. Garrett, General and Scientific Director, ASTRON/Leiden, The Netherlands Andrew P. V. Siemion, University of California at Berkeley, USA & ASTRON, The Netherlands Heino Falcke, IMAPP, Radboud University, Nijmegen, The Netherlands	IAA-P14-05
10:10 – 10:40	INVITED TALK: A Search for Spatially Unresolved Laser Emission Geoffrey W. Marcy, University of California at Berkeley, USA	IAA-P14-06
10:40 – 11:10	INVITED TALK: SETI in the Extragalactic Perspective Peter Fridman, ASTRON - Netherlands Institute for Radio Astronomy, The Netherlands Leonid Gurvits, Joint Institute for VLBI in Europe (JIVE), The Netherlands	IAA-P14-07
11:10 – 11:30	Coffee Break	

Second Morning Session

Friday, March 21st, 11:30-13:30

Chairs: Geoffrey W. Marcy, U.C. Berkeley, and Leonid Gurvits, JIVE, The Netherlands

11:30 – 11:50	Project of a Multibeam UHF Receiver to Improve Survey Capabilities Stelio Montebugnoli, Germano Bianchi, Jader Monari, Claudio Maccone, INAF, Italy	IAA-P14-08
11:50 – 12:10	A joint analysis of the Drake equation and the Fermi Paradox Nikos Prantzos, Institut d'Astrophysique de Paris, France	IAA-P14-09
12:10 – 12:30	The Matrix Criteria John Elliott, Leeds Metropolitan University, UK	IAA-P14-10
12:30 – 12:50	Where beyond Earth will we find life ? Martin Dominik, University of St. Andrews, UK	IAA-P14-11
12:50 – 13:10	Cogito Ergo Sum	

Daniela de Paulis, The Netherlands

IAA-P14-12

13:10 – 13:30 Autonomous Agents in Space

Spela Petric and Miha Tursic, Slovenia

IAA-P14-13

13:30 – 14:20 Lunch Break

First Afternoon Session

Friday, March 21st, 14:20-15:20

Chairs: Adam Korbitz, USA, and Stelio Montebugnoli, INAF, Italy

14:20 – 14:40 What do you do if you find ET – SETI and the Discovery of Pulsars,

Alan Penny, University of St. Andrews, UK

IAA-P14-14

14:40 – 15:00 What does it mean to say ET has “advanced” Intelligence, Civilization or Technology ?

William Edmondson, University of Birmingham, UK

IAA-P14-15

15:00 – 15:20 Hitching a Ride: Using Hypervelocity Stars for Intergalactic Travel

Joseph L. Breeden, Prescient Models, USA

IAA-P14-16

15:20-15:30 GROUP PHOTOGRAPH OF ALL PARTICIPANTS TAKEN

15:30 – 15:50 Coffee Break

Second Afternoon Session

Friday, March 21st, 15:50-17:50

Chairs: John Elliott, University of Leeds, UK, and Daniela De Paulis, The Netherlands

15:50 – 16:10 Identifying and Managing Potential Political Risks to SETI

Adam Korbitz, CeleJure Consulting, USA

IAA-P14-17

16:10 – 16:30 Culturally Determined Contact and Post-Contact Scenarios

Klara Anna Capova, UK

IAA-P14-18

16:30 – 16:50 Convergent Evolution and the Search for Biosignatures within the Solar System and Beyond

Claudio Flores Martinez, University of Heidelberg, Germany

IAA-P14-19

16:50 – 17:10 Calcium as a Signature Element of Life: A Possibility of Origin of Life on Moon and Mars

Ved Pal Singh, University of Delhi, India

IAA-P14-20

17:10 – 17:30 The Karhunen-Loève Transform: Digital Signal Analysis and Information Theory

Stephane Dumas, SETI League, Canada

IAA-P14-21

17:30 – 17:50 SETI and Evolution on Earth and Exoplanets

Claudio Maccone, IAA & INAF, Italy

IAA-P14-22

Friday, March 21st, EVENING 19:00 – 22:00: Symposium DINNER, Restaurant of Hotel IBIS Cambronne Tour Eiffel, Rue Cambronne 1, Paris. COST: 20 EUROS per person.

3. CONCLUSION

The 5TH IAA “Search for Life Signatures” Symposium held at UNESCO, Paris, France, on March 20-21, 2014, was a success from both the scientific, political and financial points of view. It was held during the “Paris Spring Meetings” week, thus enhancing the participation of Space Leaders from all over the world who flocked to Paris during that week. This success should be repeated in the future in order to foster the traditional IAA support to SETI research and related matters.

Our thanks go to the IAA President, Secretary General and Staff, as well as to Mr. Stephane Dumas from Quebec, Canada, for their full support.

Sincerely,

Dr. Claudio Maccone, this IAA Symposium Organizer.

Turin, Italy, April 24, 2014.