

Life in the Universe

Big History, SETI and the Future of Humankind

IBHA & INAF-IASF MI Symposium

Monday-Tuesday, July 15-16, 2019,

09h00 – 18h00

At CNR, Via Alfonso Corti 12, MILAN, ITALY

Metro: either PIOLA or LAMBRATE (Line 2)

Preliminary PROGRAM

MONDAY, JULY 15, 2019

8:00 – 8:45 Registration of Participants

Session 1

Big History on Earth: RNA to Humans

Chair: Patrizia Caraveo

		IBHA Paper #
8:45 – 9:00	Welcome to Participants Authorities and Members of the Scientific Organizing Committee (SOC)	IBHA19-01
9:00 – 9:20	SETI and Big History Lowell Gustafson, IBHA President, Villanova University, USA	IBHA19-02
9:20 – 9:40	Expanding Worldviews: The Intellectual and Social Benefits of Astrobiology, Big History and the Cosmic Perspective Ian Crawford, Birkbeck College, London, UK	IBHA19-03
9:40 – 10:00	The Singularity in Big History: an overview of our upcoming book Andrey Korotayev, Moscow State University, Russia	IBHA19-04
10:00 – 10:20	Biospheric evolution is coarsely deterministic David Schwartzman, Howard University, Washington D.C., USA	IBHA19-05
10:20 – 10:40	Evo-SETI: a mathematical Big History leading to a Scale for Life in the Universe Claudio Maccone, IAA (Paris, France) and INAF-IASF MI (Milan, Italy)	IBHA19-06
10:40 – 11:00	<i>Coffee Break</i>	

Session 2

SETI Searches: 1960 to date and beyond

Chair: Ian Crawford

- 11:00 – 11:20 **(tentative) Breakthrough Listen (BL): the most comprehensive SETI searches to date**
Andrew Siemion, University of California at Berkeley, USA IBHA19-07
- 11:20 – 11:40 **Galactic population and detectability of non-natural electromagnetic emissions**
Claudio Grimaldi, Ecole Fédérale Polytechnique de Lausanne, Switzerland IBHA19-08
- 11:40 – 12:00 **A history of cosmic habitability**
Amedeo Balbi, University of Rome “Tor Vergata”, Italy IBHA19-09
- 12:00 – 12:20 **Energy Rate Density as a Technosignature: The Case for Stellivores**
Clément Vidal, Vrije Universiteit Brussel, Belgium IBHA19-10
- 12:20 – 12:40 **(tentative) SKA and the future of SETI searches**
Mike Garrett, University of Manchester, UK IBHA19-11
- 12:40 – 13:00 **GROUP PHOTOGRAPH OF ALL PARTICIPANTS TAKEN**
Description and Quest for the July 17th visit to the SETI facilities at Medicina and to San Marino
- 13:00 – 15:00 Lunch Break at a restaurant of your choice in Milan (best if nearby the Symposium venue)**

Session 3

SETI Technology and Space Missions

Chair: Nichi D'Amico

- 15:00 – 15:20 **(tentative) SETI searches at the Sardinia Radio Telescope (SRT)**
Andrea Melis, Cagliari Observatory (INAF), Italy IBHA19-12
- 15:20 – 15:40 **(tentative) KLT vs. FFT for SETI worldwide**
Matteo Trudu, Cagliari Observatory (INAF), Italy IBHA19-13
- 15:40 – 16:00 **Magnified images of Earth-like planets using the Sun as a Gravitational Lens**
Nicolò Antonietti, Member of the IAA SETI Permanent Committee, Italy IBHA19-14
- 16:00 – 16:20 Coffee Break**

Session 4

Teaching Big History worldwide

Chair: Lucy B. Laffitte

- 16:20 – 16:40 **Local Big History: linking our own history to the Great Vision**
Giovanni Grieco, Università degli Studi di Milano, Italy IBHA19-15
- 16:40 – 17:00 **Big History at School:
Rethinking Disciplines according to Skills to be promoted among Youths**
Marina Porta, Liceo “Antonio Banfi”, Vimercate, Italy IBHA19-16
- 17:00 – 17:20 **BH678: Big History in the Italian Middle Schools,
a Manifesto against the Fragmentation of Knowledge**
Paolo Vismara, Scuola Secondaria di Primo Grado “Segantini”, Nova Milanese, Italy IBHA19-17
- 17:20 – 17:40 **Big History Teaching experience from the Hong Kong University of Science and Technology
and the Hong Kong Academy for Gifted Education**
Aidan Wong, Wai Hin, The Hong Kong University of Technology, China IBHA19-18
- 17:40 – 18:00 **Lucretius and Big History**
Timothy Doran, California State University, USA IBHA19-19

Session 5

Musical Touch - Chair: Sam Guarnaccia

- 18:00 – 18:20 **Close Encounters: Connecting Outer and Inner Space**
Sam Guarnaccia, SGM (Sam Guarnaccia Music), USA IBHA19-20

TUESDAY, JULY 16, 2019

Session 6

Big History of the last 4 billion years on Earth and Mars

Chair: Lucy B. Laffitte

		IBHA Paper #
8:45 – 9:00	The evolutionary psychology of first contact: Lessons from 4 billion years of competition, conflict, and cooperation on planet Earth Russil Durant, Victoria University of Wellington, New Zealand	IBHA19-21
9:00 – 9:20	SETI – A terrestrial point of comparison Peter D. Nixon, Member of Independent Scholars Association of Australia	IBHA19-22
9:20 – 9:40	Big History as Sociology of History Stephen Satkiewicz, Oakland University, USA	IBHA19-23
9:40 – 10:00	Considering Grand Challenges in Undergraduate Biology Education: Big History, Interdisciplinarity, and the Nature of Science Paul Narguizian, California State University, Los Angeles, USA	IBHA19-24
10:00 – 10:20	Human Culture and the Process of Evolution James Michael Tierney, Retired Social Worker, USA	IBHA19-25
10:20 – 10:40	Searching for Life on Mars: the role of Chaos Giorgio Bianciardi, University of Siena, Italy	IBHA19-26
10:40 – 11:00	Coffee Break	

Session 7

Big History Worldwide and the Future of Humankind

Chair: Lowell Gustafson

11:00 – 11:20	Are there common patterns shaping long-term evolution of human societies ? Lessons from Tikopia and Rapa Nui Alessandro Maini, Macquarie University, Sydney, NSW, Australia	IBHA19-27
11:20 – 11:40	The Tour of the Big History in Argentina Gabriel Gromadzyn, Argentina	IBHA19-28
11:40 – 12:00	Some Culturological aspects of METI problem in EM radiation Vladimir Filippov, Russia	IBHA19-29
12:00 – 12:20	Peer Complexity during the Stelliferous Era J. N. “Nick” Nielsen, Icarus Interstellar, USA	IBHA19-30
12:20 – 12:40	A Mathematical Analysis of Steven Pinker’s Books Based on Geometric Brownian Motions Claudio Maccone, IAA (Paris, France) and INAF-IASF MI (Milan, Italy)	IBHA19-31
12:40 – 13:00	The Future’s So Bright, You Gotta Wear Shades Lucy B. Laffitte, IBHA Vice-President, North Carolina State University, USA	IBHA19-32
13:00 – 13:20	<u>SECOND GROUP PHOTOGRAPH OF ALL PARTICIPANTS TAKEN</u> <i>Description and Quest for the July 17th visit to the SETI facilities at Medicina and to San Marino</i>	

13:20 – 19:00 **FREE AFTERNOON** to visit Milan as you please

19:00 – 22:00 **EVENING DINNER** graciously offered by the Breakthrough Initiatives. Attire: casual

WEDNESDAY, JULY 17, 2019

- 10:00 – 12:00** Bus departing from the Symposium Venue (via Alfonso Corti 12 in Milan) to visit the SETI facilities (i.e. radio telescopes) at the country village of Medicina, near Bologna. Please **HAVE YOUR LUGGAGE WITH YOU** and board it on the Bus.
Claudio Maccone and Francesco Brigante (from the Republic of San Marino)
- 12:00 – 14:00** Lunch at the “Voli e Sapori” Restaurant near the SETI facilities at Medicina
All
- 14:00 – 15:00** Popular Lecture about Radio Astronomy at the nearby “Marcello Ceccarelli” Museum
Staff of the “Marcello Ceccarelli” Museum of Radio Astronomy
- 15:00 – 17:00** Walking tour around the two radio telescopes: “Northern Cross” and “Parabola”
All
- 17:00 – 18:00** Bus taking willing Participants to the train station of Bologna Centrale.
For the benefit of those willing to travel back to Milano Centrale train station and later to Malpensa Airport (MXP) by train, so as to FLY back home from MXP on Thursday, July 18, after spending the night of July 17 at a hotel nearby MXP, for instance at the Sheraton Hotel there.
- 18:00 – 19:00** Bus with remaining Participants arrives at the San Marino “Idesign Hotel” (suggested Hotel).
All
- 19:00 – 23:00** Dinner at the “Il Boschetto” Restaurant in San Marino with musical entertainment and a fantastic view of the Adriatic Sea at sunset and in the night
All, then night at a hotel of your choice in San Marino

THURSDAY, JULY 18, 2019

- 9:00 – 13:00** Visit to San Marino
All: visit organized and led by Francesco Brigante
- 13:00 – 15:00** Lunch at a panoramic Restaurant in San Marino
All: lunch organized by Francesco Brigante
- 15:00 – 18:00** Bus transportation from San Marino to the Rimini Stazione Centrale
All: bus transportation organized and led by Francesco Brigante
- After 15:00** Train travel from Rimini, Stazione Centrale, to Milano Centrale and then Malpensa (MXP)
Night at a hotel nearby Malpensa Airport (Sheraton Hotel is within MXP, possibly expensive)

FRIDAY, JULY 19, 2019

Fly back home from Malpensa (MXP) airport.