Monday, April 26, 2010
POSTER SESSION: SEARCH FOR INTELLIGENT LIFE
6:00 p.m. Marina Plaza Ballroom

Welch W. J.
The Allen Telescope Array as a Tool for SETI and Astrobiology Research **[#5437]**
The Allen Telescope Array is now functioning with 42 antennas and producing results as a scientific survey instrument for SETI and for astrobiology research.

Harp G. R. Backus P. R. Kilsdonk T. N. Jordan J. C. Tarter J. C.
Algorithm to Extract Information-containing Seti Signals and Results from the Allen Telescope Array **[#5605]**
There is a simple signal type that we believe should be searched for in SETI observations. It can be detected with very good computational efficiency yet contains high quantities of information, unlike conventional narrowband searches.

Blair S. K. Tarter J. C. Messerschmitt D. G.
Modeling the Effects of the Interstellar Medium on Engineered Signals of Extraterrestrial Origin **[#5353]**
The ISM can modify technological and engineered signals traveling from distant star systems. We use techniques developed by pulsar researchers to seek insights into the types of signals to expect based on the effects of ISM propagation impairments.

Siemion A. Werthimer D. Chen H. Cobb J. Cordes J. Filiba T. Fries A. Howard A. Korpela E. Lebofsky M. Mallard W. Spitler L. Wagner M.
Current and Nascent SETI Instruments in the Radio and Optical: SERENDIP V.v, OSPOSH and HRSS **[#5378]**
Here we describe our ongoing efforts to develop high-performance and sensitive instrumentation for use in the search for extra-terrestrial intelligence (SETI).

Korpela E. J. Cobb J. Lebofsky M. Siemion A. von Korff J. Bankay R. Werthimer D. Anderson D.
Candidate Identification and Interference Removal in SETI@home **[#5478]**
Since 1999, SETI@home volunteers have detected over 4.2 billion potential signals. In this talk I describe the processes of interference removal used in the SETI@home post-processing pipeline, as well as those used to identify candidates worthy of further investigation.

Montebugnoli S. Bianchi G. Bartolini M. Mattana A. Monari J. Naldi G. Perini F. Pluchino S. Pupillo G.
SETI-Italia: Present Activities and Future Real Time Data Processing System **[#5011]**
A complete review of present SETI-Italia activities and data processing systems are presented. The future plan is to develop a new very powerful data processing reconfigurable platform (based on FPGAs) to implement even more powerful real time algorithms.

Bhathal R.
The Australian Optical Seti Project **[#5046]**
This paper discusses the progress and future plans for the Australian Optical SETI project.

DeVito C. L.
A Language for Inter-Stellar Communication **[#5014]**
A language, based on science, and its use in inter-stellar communication, is presented.

Dumas S.
A Proposal for an Interstellar Rosetta Stone **[#5045]**
Interstellar radio messages is our only, and probably best, way to communicate with another alien civilisation. Since the delay of communication over long distance is considerable, the content of the broadcast is very important.

Ollongren A. Vakoch D. A.
Processes in Lingua Cosmica **[#5042]**
The present paper is concerned with the non-trivial matter of representing cooperating sequential processes without reference to time in LINCOS, a linguistic system for interstellar message construction.

Cockell C. S.
The Chemiosmotic Message — A Simple and Information-rich Communication in the Search for Extraterrestrial Intelligence **[#5127]**
A description of a pictorial diagram of a SETI message showing the chemiosmotic process of energy production in life.

Lemarchand G. Lomberg J.
Universal Cognitive Mapsand the Search for IntelligentLife in the Universe **[#5061]**
The use of aesthetic, spiritual and ethical"cognitive universals." to supplement the "scientific/mathematical universals" a thath have been used in previous SETI message theory.

Atri D. DeMarines J. Haqq-Misra J.
A Protocol for Messaging to Extraterrestrial Intelligence **[#5357]**
We construct a self-consistent protocol for messaging to extraterrestrial intelligence that provides constraints and guidelines for the construction of a message in order to maximize the probability that the message is understood.

Vakoch D. A. Lower T. A. Clearwater Y. Niles B. A. Scanlin J. E.
Earth Speaks: Identifying Common Themes in Interstellar Messages Proposed from Around the World **[#5361]**
This presentation reports on thematic findings from a quantitative and qualitative analysis of the SETI Institute's Earth Speaks project, an online and world-wide project designed to solicit potential messages to extraterrestrial intelligent life.

Vakoch D. A.
Integrating Active and Passive SETI Programs: Prerequisites for Multigenerational Research **[#5213]**
By integrating Active SETI and Passive SETI programs, we could establish an institutional framework for sustaining Passive SETI and the scientists who conduct it, even in the face of decades or centuries of silence from the stars.

Denning K. E.
The Truth About Transmission **[#5069]**
"The Troubles with Transmission" unpacks ongoing debates concerning Active SETI.

Davis J. Hofmans D.
RuBisCo Stars and the Riddle of Life **[#5370]**
Here we report transmission of a coded signal from Arecibo Observatory to commemorate the 35-year anniversary of the Drake message for ETI. On November 7, 2009, a signal was transmitted to intercept three stars likely to have planets (GJ 83.1; SO 025300.5 + 165258; G5B).

Benford J. Benford G. Benford D.
Building Cost-Optimized Interstellar Beacons for Messaging **[#5035]**
How would we on Earth build galactic-scale beacons to attract the attention of extraterrestrials? An optimum tradeoff emerges by minimizing the cost of producing power density at long range. We show scaling, examples and costs.

Lupisella M. L.
Cosmocentrism and the Active Search for Extraterrestrial Intelligence **[#5597]**
Applies cosmocentric perspectives to the question of Active SETI, with a focus on "bootstrapped cosmocultural evolution", which has aspects of both pragmatism and cosmocentrism. Active SETI is supported along with international consultation.

Lestel D.
The "Ethical Paradox of Communication with Extra-Terrestrial Intelligences" **[#5212]**
Technological conditions required by the boundaries of our human intelligence to communicate with E.T. intelligence could put us within a situation in which one could abdicate a fundamental part of what it means to be human.

Lyall F.
SETI and International Radio Law **[#5137]**
The use of radio in SETI is subject to international rules agreed through the International Telecommunication Union. These are summarised. An opportunity for their revision will arise in 2012. Suggestions may be made.

Shostak G. S.
Special Targets for SETI **[#5055]**
Extending SETI targets beyond the conventional stellar system surveys.

Edmondson W. H.
Understanding the Search Space for SETI **[#5090]**
'Dimensions' of the search space for SETI are: active vs passive, direct vs indirect, and electromagnetic spectrum. These are considered in relation to the question "Are we alone?" and gaps in coverage in SETI work point to the nature of future SETI.

Scheffer L. K.
Large Scale Use of Solar Power May be Visible Across Interstellar Distances **[#5207]**
Large scale solar power must intercept a large amount of the sun's radiation. Optimized panel orientations will then concentrate their reflections into a small subtended angle. These effects make the reflections visible across interstellar distances.

Maccone C.
Interstellar Radio Links Enabled by Gravitational Lenses of the Sun and Stars **[#5016]**
We show that radio telecommunications accross vast interstellar distances are possible if the gravitational lenses of both the emitting and receiving star system are exploited. Then the transmission powers in the game become much smaller than previously expected in SETI.

Maccone C.
Relativistic KLT to Link Up with Very Fast Radio Sources like Quasars and Probes **[#5020]**
The KLT (Karhunen-Loève Transform) is optimal for filtering weak signals out of the background noise in SETI and radio astronomy. We present the relativistic KLT enabling us to link up with relativistic radio sources like quasars and/or spaceships.

Carrigan R. A. Jr.
Starry Messages: Searching for Signatures of Interstellar Archaeology **[#5068]**
Interstellar archaeology, searching for signatures of stellar-scale archaeological artifacts, is an alternative to normal SETI. With a few interesting exceptions interstellar archaeological signatures are beyond current technological capabilities.

Harrop B. L. Schulze-Makuch D.
The Detection of a Dyson-Harrop Satellite: A Technologically Feasible Astroengineering Project and Alternative to the Traditional Dyson Sphere **[#5469]**
The Dyson sphere was numerically analyzed and found technically infeasible. A Dyson-Harrop satellite is proposed as a Dyson-sphere variant, one which could be discovered in space. Modeling suggests that a DHS could be built using modern technology.

Dutil Y. Dumas S.
Cost Analysis of Space Exploration for Extraterrestrial Civilisations **[#5173]**
This paper analyses the impact of rocket science on space exploration. It is possible for a extraterrestrial civilisation to explore and colonise space while using reasonable resources.