

SARA IMARI WALKER, PH.D.

Assistant Professor
School of Earth and Space Exploration and
Beyond Center for Fundamental Concepts in Science
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EDUCATION

Dartmouth College	2010
Ph.D. in Physics and Astronomy Thesis: <i>Theoretical Models for the Emergence of Biomolecular Homochirality</i>	
Florida Institute of Technology	2005
B.S. Physics, <i>Cum Laude</i>	
Cape Cod Community College	2003
A.A. Math/Science/Pre-Engineering	

PROFESSIONAL EXPERIENCE

Assistant Professor, Arizona State University	Aug. 2013 – <i>present</i>
NASA Postdoctoral Program Fellow, NASA Astrobiology Institute	2011 – 2013
Adjunct Faculty, Arizona State University	2011 – 2013
Postdoctoral Fellow, Georgia Institute of Technology	2010 – 2011
Graduate Fellow, Dartmouth College	2005 - 2010
Research Assistant, Experimental High Energy Physics Group, Florida Tech	2003 – 2005
Research Team Leader, NASA In-Situ Resource Utilization Team, Florida Tech	2004 – 2005

HONORS AND AWARDS

Fourth Prize (\$1,000), Foundational Questions Institute Essay Contest	2012
NASA Postdoctoral Program Fellowship , NASA Astrobiology Institute	2011
Gordon F. Hull Fellowship , Dartmouth College	2009 – 2010
Filene Graduate Teaching Award (\$1,000), Dartmouth College	May 2009
Selamawit Tsehaye Teaching Award , Dartmouth College	June 2008
Community Service Award (\$1,000), Dartmouth College	May 2008
Dartmouth Fellowship , Dartmouth College	2005 – 2009
New Hampshire Space Grant/NASA Graduate Fellowship , NH Space Grant	2007 – 2008
Outstanding Senior in Physics Award , Florida Institute of Technology	2004

PUBLICATIONS

† *Postdoctoral Fellow.* ‡ *Graduate Student.* * *Authors contributed equally.*

S.I. Walker (2014) Top-down Causation and the Rise of Information in the Emergence of Life. *Information* **5** 424-439. [online]

T.Pavlic[†], A.M. Adams[‡], P.C.W. Davies and **S.I. Walker** (2014) Self-Referencing Cellular Automata: A Model of the Evolution of Information Control in Biological Systems. *Proc. Artificial Life XIV* pp. 522- 529. [online] arXiv:1405.4070

S.I. Walker, P.C.W. Davies, P. Samantray[‡] and Y. Aharanov. (2014) Quantum Non-barking Dogs. *New J. Phys.* **16** 063026. [online]

S.I. Walker*, B. Callahan*, G. Arya, J.D. Barry, T. Bhattacharya, S. Grigoryev, M. Pellegrini, K. Rippe, S.M. Rosenberg. (2013) Evolutionary Dynamics and Information Hierarchies in Biological Systems'. *Ann. N.Y. Acad. Sci.* DOI: 10.1111/nyas.12140 [online]

N. Vayda*, **S.I. Walker*** and N. Lehman. (2013) Recycling of Informational Units Leads to Selection of Replicators in a Prebiotic Soup. *Chemistry & Biology* **20**: 241 - 252. [online]

S.I. Walker and P.C.W. Davies "The Algorithmic Origins of Life" (2013) *J. Roy. Soc. Interface* **6**: 20120869. [online]

M. Gleiser and **S.I. Walker** (2012) Life's Chirality from Prebiotic Environments. *Int. J. Astrobio.* **11**: 287-296. [online]

M. Wu, **S.I. Walker**, and P.G. Higgs. (2012) Autocatalytic Replication and Homochirality in Biopolymers: Is Homochirality a Requirement of Life or a Result of it? *Astrobiology* **12**: 809 – 817. [online]

S.I. Walker, L. Cisneros and P.C.W. Davies. (2012) Evolutionary Transitions and Top-Down Causation. *Proceedings of Artificial Life XIII.* p 283-290. [online] arXiv:1207.4808

D. Schulze-Makuch, P.C.W. Davies and **S.I. Walker**. (2012) A Series of One-Way Missions to Explore and Colonize Mars. *Proceedings of the 2012 Global Space Exploration Conference.*

S.I. Walker, M.A. Grover and N. V. Hud. (2012) Universal Sequence Replication, Reversible Polymerization and Early Functional Biopolymers: A Model for the Initiation of Prebiotic Sequence Evolution. *PLoS ONE* **7**: e34166. [online]

M. Gleiser, B. Nelson, and **S.I. Walker** (2012) Chiral Polymerization in Open Systems From Chiral-Selective Reaction Rates. *Orig. Life Evol. Biosph.* **42**: 333-346. [online]

S.I. Walker “Homochirality”, In *Encyclopedia of Astrobiology*. M. Gargaud (ed.) (2011)

M. Gleiser and **S.I. Walker** (2010) The Chirality of Life: From Phase Transitions to Astrobiology. Astronomy and Relativistic Astrophysics: New Phenomena and New States of Matter in the Universe Proceedings of the Third Workshop (IWARA07) 17 - 30. [online] arXiv:0811.1291

M. Gleiser and **S.I. Walker** (2009) Toward Homochiral Protocells in Noncatalytic Peptide Systems. *Orig. Life Evol. Biosph.* **39**: 479 - 493. [online]

M. Gleiser, J. Thorarinson, and **S.I. Walker** (2008) Punctuated Chirality. *Orig. Life Evol. Biosph.* **38**: 499 – 508. [online]

M. Gleiser and **S.I. Walker** (2008) An Extended Model for the Evolution of Prebiotic Homochirality: A Bottom-Up Approach to the Origins of Life. *Orig. Life Evol. Biosph.* **38**: 293 – 315. [online]

REPORTS AND BOOK CHAPTERS

C. Burrows, **S.I. Walker**, S. Amin and E.V. Armburst. Alternative Chemistries for Life: Empirical Approaches. A NSF/NASA Report, J.T. Goodwin and D.G. Lynn (eds). 2014 [online]

S.I. Walker, “Transition from Abiotic to Biotic: Is There an Algorithm for it?” In *Astrobiology: An Evolutionary Approach V*. Kolb (ed.) CRC Press, 2014. [online]

THESIS

S.I. Walker (2010) *Theoretical Models for the Emergence of Biomolecular Homochirality*. PhD Dissertation, Dartmouth College.

CONFERENCE ABSTRACTS

H.J. Kim[†], P.C.W. Davies and **S.I. Walker** (2014) Informational Architecture of the Fission Yeast Cell-Cycle Regulatory Network. *ALIFE 14: The Fourteenth Conference on the Synthesis and Simulation of Living Systems*, Vol. 14, pp. 569- 570.

S.I. Walker and P.C.W. Davies (2012) The Algorithmic Origins of Life. *Astrobiology Science Conference 2012: Exploring Life: Past and Present, Near and Far*, held April 16-20, 2012 in Atlanta, GA.

S.I. Walker (2012) Rise of information in the origins of life. *Astrobiology Science Conference 2012: Exploring Life: Past and Present, Near and Far*, held April 16-20, 2012 in Atlanta, GA.

S.I. Walker and P.C.W. Davies (2012) Rise of information in the origins of life. *Abstracts of papers of the American Chemical Society* Vol 243. 1155 16TH ST, NW, Washington, DC 20036 USA: AMER CHEMICAL SOC, 2012.

S.I. Walker, N.V. Hud and M.A. Grover (2012). Model for the emergence of the first functional polymers during sequence independent replication. *Abstracts of papers of the American Chemical Society* Vol 243. 1155 16TH ST, NW, WASHINGTON, DC 20036 USA: AMER CHEMICAL SOC, 2012.

S.I. Walker(2011) Collective Dynamics, Functional Evolution, and the Emergence of Life. *Abstracts of Astrobiology Graduate Conference (AbGradCon) 2011*, held June 5 - 8 2011 at Montana State University, Bozeman, Montana. *Astrobiology* 11(4): 367-389, AbAGC11-t34.

S.I. Walker and M. Gleiser (2010) Modeling Dynamics and Environmental Influence on the Emergence of Prebiotic Homochirality: From Chiral Symmetry Breaking to Emergent Biology. *Astrobiology Science Conference 2010: Evolution and Life: Surviving Catastrophes and Extremes on Earth and Beyond*, held April 26-20, 2010 in League City, Texas. LPI Contribution No. 1538, p.5271

POPULAR WRITING

S.I. Walker (2014) Little Green Men Might Not Be So "Green", *Slate FutureTense* [online]

S.I. Walker (2012) Is Life Fundamental? Foundational Questions Institute (FQXI) Essay Contest (Fourth Prize - awarded \$1,000) [online]

GRADUATE STUDENTS ADVISED

Alyssa Adams (Department of Physics, Arizona State University)

Nicholas Mathis (Department of Physics, Arizona State University)

Harrison Smith (School of Earth and Space Exploration, Arizona State University)

Alicia Gonzalez (School of Earth and Space Exploration, Arizona State University)

Steven Glaser (School of Earth and Space Exploration, Arizona State University)

Ryan Brosch (Department of Physics rotation student, Fall '13)

Varda Fagir Hagh (Department of Physics rotation student, Spring '14)

Rachel Hoskins (Arizona State University Graduate College, '13 - '14)

GRADUATE THESIS COMMITTEE MEMBER

Eric Alsop (School of Earth and Space Exploration, Arizona State University, graduated June 2014)

Nathan Smith (School of Earth and Space Exploration, Arizona State University)

UNDERGRADUATE STUDENTS ADVISED

Patricia Esch (Biology Major, summer '14), NASA Space Grant Intern (Fall '14)

Candace Ashley (SESE Major, summer '14)

TEACHING

Arizona State University

Instructor, AST111: Introduction to Solar Systems Astronomy Fall 2014

Guest Lecturer, GLG 591 (Fall '13 and '14), PHY 494 (Spring '13), COM 394 (Fall '12, Spring '13)

Dartmouth College

Instructor, Dartmouth Center for the Advancement of Learning

TA Series: Difficult Situations Fall 2008 & Winter 2010

Teaching Assistant, Dartmouth College Physics and Astronomy Department

Exploring the Universe (Astronomy 2/3) Fall '09, Summer '06, '07 & '08

Exploration of the Solar System (Astronomy 1) Winter 2009

The Development of Astronomical Thought (Astronomy 4) Spring 2007

Introductory Physics I (Physics 13) Fall & Winter 2006

Understanding the Universe: Physics Through the Ages (Physics 1) Spring 2006

INVITED SEMINARS, COLLOQUIA & LECTURES

Information Hierarchies, Chemical Evolution and the Transition From Non-Life to Life Feb. 2014

NASA Postdoctoral Program Alumni Inaugural Lecture, NASA Astrobiology Institute

The Rise of Information in the Origin of Life Feb. 2014

Astrobiology Coffee Hour Seminar, Arizona State University, Tempe AZ

The Algorithmic Origins of Life Apr. 2013

Physics Department Colloquium, Arizona State University, Tempe AZ

Quantum Non-barking Dogs Apr. 2013

Cosmology Seminar, Arizona State University, Tempe AZ

Chemical Evolution from Geochemistry to Biology Apr. 2013

Astrobiology Coffee Hour Seminar, Arizona State University, Tempe AZ

The Algorithmic Origins of Life Jan. 2013

Sante Fe Institute, Sante Fe NM

The Algorithmic Origins of Life Nov. 2012

The SETI Institute, Mountainview CA

<i>The Algorithmic Origins of Life</i>	Oct. 2012
Astrobiology Program Colloquium, University of Washington, Seattle WA	
<i>Is Life Fundamental?</i>	Mar. 2012
Cosmology Seminar, Arizona State University, Tempe AZ	
<i>Not Understanding the Physics Behind Origins</i>	Mar. 2012
NASA Astrobiology Institute Origin of Life Focus Group Inaugural Virtual Seminar	
<i>von Neumann Machines and the Origin and Distribution of Life in the Universe</i>	Dec. 2011
Blue Marble Space Institute of Science Podcast Seminar	
<i>Non-Darwinian Dynamics and the Emergence of Life</i>	Sept. 2011
Astrobiology Coffee Hour Seminar, Arizona State University, Tempe AZ	
<i>The Origin of Life: From Phase Transitions to Astrobiology</i>	May 2011
Cosmology Seminar, Arizona State University, Tempe AZ	
<i>Evolvability and the Emergence of Population Structure in Prebiotic Chemistry</i>	Feb. 2011
Center for Chemical Evolution, Georgia Institute of Technology, Atlanta GA	
<i>Punctuated Chirality</i>	Mar. 2010
Origins Institute & Astrobiology Program, McMaster University, Ontario Canada	
<i>Chirality and the Origin of Life</i>	Mar. 2010
Carnegie Institution of Washington Geophysical Laboratory, Washington DC	
<i>Chirality and the Origin of Life: From Fundamental Physics to the Search for Life in the Universe</i>	Feb. 2010
Department of Physics and Astronomy, Colgate University, Hamilton NY	
<i>Life, Physics, and the Origin of Everything</i>	Dec. 2009
Department of Physics and Astronomy, Denison University, Granville OH	
<i>Punctuated Chirality</i>	Mar. 2010
Astrobiology Seminar, McMaster University, Hamilton ON	

CONFERENCE & WORKSHOP PRESENTATIONS

* *Contributed Talk*, ** *Invited Talk*, † *Panel*

<i>The Origin of Life</i> [†]	Aug. 2014
SciFoo, Google Campus, Mountain View CA	
** <i>The Emergence of Life as a Transition in Causal and Informational Architecture</i>	Mar. 2014
The Power of Information, Oxford University, Oxford UK	
* <i>Mentoring through Social Media: Connecting Scientists to Students</i>	Oct. 2013
Global STEMX Conference (virtual)	
** <i>Chemistry, Complexity and the Arrow of Time</i>	Oct. 2013
Thermodynamics, Disequilibrium and Evolution Focus Group Meeting, Florence Italy (virtual)	
** <i>What Can Astrobiology Teach Us About Cancer?</i>	Apr. 2013
Plenary talk, 4th Annual Physical Sciences - Oncology Centers (PS-OCs) Network Investigators' Meeting, Scottsdale AZ	

- ** *The Algorithmic Origins of Life* Jan. 2013
Workshop on the Origins of Life, Princeton Center for Theoretical Science, Princeton NJ
- ** *The Way Ahead . . .* Nov. 2012
Workshop on Oxidative Stress and the Deep Evolutionary Roots of Cancer
Beyond Center for Fundamental Concepts in Science, Arizona State University, Tempe AZ
- ** *The Information Hierarchy, Chemical Evolution, and the Origin of Life* Sept. 2012
Workshop on Evolutionary Dynamics and Information Hierarchies, Aspen Center for Physics,
Aspen CO
- * *Evolutionary Transitions and Top-down Causation* July 2012
Artificial Life XIII: The 13th International Conference on the Simulation and Synthesis of
Living Systems, East Lansing MI
- ** *Non-life to Life: Is it all about Information Flow?* May 2012
Workshop on the Origins and Nature of Biological Information
Beyond Center for Fundamental Concepts in Science, Arizona State University, Tempe AZ
- * *A Series of One-Way Missions to Explore and Colonize Mars* May 2012
2012 Global Space Exploration Conference, L'Enfant Plaza Hotel, Washington DC
- ** *Is There a Physics of Intelligence?* Apr. 2012
2nd Intelligence in Astrobiology Virtual Workshop, Georgia Tech, Atlanta GA
- * *The Algorithmic Origins of Life* Apr. 2012
2012 Astrobiology Science Conference, Georgia Tech Hotel & Conference Center, Atlanta GA
- ** *The Rise of Information in the Origins of Life* Apr. 2012
2012 Astrobiology Science Conference, Georgia Tech Hotel & Conference Center, Atlanta GA
- * *The Rise of Information in the Origins of Life* Mar. 2012
American Chemical Society Spring Meeting 2012: The Chemistry of Life, San Diego CA
- ** *Is There a Physics of Intelligence?* Feb. 2012
1st Intelligence in Astrobiology Virtual Workshop, Arizona State University, Tempe AZ
- Steps Toward Life: A Model for the Initiation of Prebiotic Sequence Evolution* Jan. 2012
Origin of Life Gordon Research Seminar and Conference, Galveston TX
- Emergence of Population Structure and Functional Evolution in Simulations of Environmentally
Driven Replication* July 2011
Origins 2011, Montpellier France (*not attending*)
- * *Collective Dynamics, Functional Evolution, and the Emergence of Life* June 2011
Astrobiology Graduate Student Conference (AbGradCon), Bozeman MT
- * *Astrobiology Research Focus Group Workshop 2011* June 2011
Astrobiology Graduate Student Conference (AbGradCon), Bozeman MT
- * *Information and the Origin of Life* Apr. 2011
Biophest, Department of Physics, Arizona State University, Tempe AZ
- Modeling Dynamics and Environmental Influence on the Emergence of Prebiotic Homochirality:
From Chiral Symmetry Breaking to Emergent Biology* Apr. 2010
2010 Astrobiology Science Conference, League City TX

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- ** *Could the First Replicator Survive Enantiomeric Poisoning?*** Mar. 2010
Workshop on Homochirality in Biology
Beyond Center for Fundamental Concepts in Science, Arizona State University, Tempe AZ
- From Prebiotic Chemistry to Biology: Modeling the Emergence of Protocells in Early Earth*** Jan. 2010
Origin of Life Gordon Research Seminar and Conference, Galveston TX
- The Chirality of Life: From Phase Transitions to Astrobiology*** July 2009
Astrobiology Graduate Student Conference (AbGradCon), U. of Washington, Seattle, WA
- From Prebiotic Chemistry to Biology: Modeling the Emergence of Protocells in Early Earth*** May 2009
The Search for Life in the Universe, Space Telescope Science Institute, Baltimore, MD
- The Chirality of Life: From Phase Transitions to Astrobiology*** May 2009
The Search for Life in the Universe, Space Telescope Science Institute, Baltimore, MD
- * *Chiral Symmetry Breaking and Emergent Protocells*** Oct. 2008
Greater Boston Area Statistical Mechanics Meeting, Brandeis University, Waltham, MA
- ** *Right versus Left: Why Bigger is Better (. . . but not always enough)*** Feb. 2008
Origins of Homochirality Conference, Nordic Institute for Theoretical Physics, Stockholm, Sweden
- ** *Punctuated Chirality*** Feb. 2008
Origins of Homochirality Program, Nordic Institute for Theoretical Physics, Stockholm, Sweden
- * *The Chiral Origins of Life*** Oct. 2007
Greater Boston Area Statistical Mechanics Meeting, Brandeis University, Waltham, MA
- Evolution of Prebiotic Homochirality: A Field Theory Approach to the Origin of Life*** May 2007
Arts & Sciences Graduate Poster Session, Dartmouth College, Hanover, NH

PROFESSIONAL LEADERSHIP

- Board of Directors** 2014 - *present*
Blue Marble Space (education and research non-profit), Seattle WA USA
- Director**, SAGANet.org (astrobiology-themed education website) Spring 2011 - *present*
- Organizer**, *Information, Causality and the Origin of Life* Workshop Sept. 2014
Beyond Center for Fundamental Concepts in Science, Arizona State University, Tempe AZ
- Organizer**, *Information, Complexity and Life* Workshop Feb. 2014
Beyond Center for Fundamental Concepts in Science, Arizona State University, Tempe AZ
- Organizer**, *Engines of Life: Thermodynamic Pathways to Metabolism* Workshop May 2013
Beyond Center for Fundamental Concepts in Science, Arizona State University, Tempe AZ
- Editor**, "Information Hierarchies and Evolutionary Dynamics" Spring 2013
Aspen Center for Physics Workshop Proceedings, *Annals of the New York Academy of Sciences*
- Organizer**, *Oxidative Stress and the Deep Evolutionary Roots of Cancer* Workshop Nov. 2012
Beyond Center for Fundamental Concepts in Science, Arizona State University, Tempe AZ

Sara Imari Walker

- Organizer**, *The Origin and Nature of Biological Information* Workshop May 2012
Beyond Center for Fundamental Concepts in Science, Arizona State University, Tempe AZ
- Co-organizer and Co-author** Apr. 2012
NASA/NSF Alternative Chemistries for Life Workshop and Report [online]
- Organizer**, Astrobiology Coffee Hour Seminar Series Spring 2012
“Follow the Elements” NASA Astrobiology Institute Center, Arizona State University, Tempe AZ
- Co-organizer**, *Evolution, Development and Cancer: Connecting the Dots* Workshop Feb. 2012
Beyond Center for Fundamental Concepts in Science, Arizona State University, Tempe AZ
- Chair**, Gordon Research Seminar Jan. 2012
Origin of Life Gordon Research Seminar, Galveston TX
- Organizer**, Astrobiology Research Focus Group Workshop June 2011
2011 Astrobiology Research Focus Group Workshop for Early–Career Astrobiologists, Ennis MT
- Co–Organizer**, Astrobiology Research Focus Group Workshop Apr. 2010
2010 Astrobiology Research Focus Group Workshop for Early–Career Astrobiologists, Crockett TX
- Discussion Leader**, Prebiotic Chemistry and the Environments of Early Life Jan. 2010
Origin of Life Gordon Research Seminar, Galveston TX

PUBLIC ENGAGEMENT

- SciFri Book Club Discussion Leader**, Science Friday
National Public Radio (on air 2x, average listenership ~ 1.3 million) July & Aug. 2014
- Speaker**, “Astrobiology and the Search for ETI” July 2014
Phoenix Public Library, Phoenix AZ
- Speaker**, “The Search for ETI in the 21st Century: Beyond Radio Astronomy?” Mar. 2014
West Valley Astronomy Club, Phoenix AZ
- Panelist**, Phoenix Comicon, Phoenix AZ May 2014
- Panelist**, “Serenity, Software and the Science of Science Fiction”, Arizona State Univ. May 2014
- Speaker**, “Sci-Fi Driving Sci-Fact” SpaceVision, Tempe AZ Nov. 2013
- Speaker**, “The Emergence of Life: Here and Elsewhere” Earth and Space Exploration Day
School of Earth and Space Exploration, Arizona State University, Tempe AZ Nov. 2013
- Program Coordinator & Science Mentor**, SAGANet.org Mentorship Program 2013 – *present*
- Speaker**, “What is Life?” Spirit of the Senses Salon, Phoenix AZ Aug. 2013
- Judge**, Intel International Science and Engineering Fair, Phoenix AZ May 2013
- Panelist**, Phoenix Comicon, Phoenix AZ May 2013
- Speaker**, “The Search for ETI in the 21st Century: Beyond Radio Astronomy?” Feb. 2013
East Valley Astronomy Club, Mesa AZ
- Speaker**, “Astrobiology: Life in the Universe”
Science Circle of Arizona, Tempe AZ Feb. 2013
- Panelist**, “Wilder Ideas – One-Way Missions, Warp Drives, Starships . . .”
Beyond Center Symposium “The Future of Humans in Space” Oct. 2012
- Speaker**, “The Origins of Life” Spirit of the Senses Salon, Phoenix AZ Oct. 2012

	Sara Imari Walker
Speaker , “The Origins of Life” East Valley Astronomy Club, Mesa AZ	Oct. 2012
Mentor , Astrobiology Science Conference	Apr. 2012
Competitor , FameLab Astrobiology Science Outreach Competition	Jan. 2012
Judge , <i>What If?</i> Prize Educator’s Competition	Jan. 2012
Guest Scientist , <i>I’m a Scientist: Get Me Out of Here!</i>	June 2011
Exhibitor for the NASA/NSF Center for Chemical Evolution, AAAS Annual Meeting	Feb. 2011
Women in Science Mentoring , Hanover NH	2009 – 2010
Co-founder & Organizer Dartmouth College Science Cafés	2008 – 2010
Founding Member , Dartmouth Graduate Women in Science & Engineering	2008 – 2010
Speaker , Thetford High School, Thetford VT	Oct. 2009
Speaker , Hanover High “Mind Blowing Physics” mini-course, Hanover NH	2008 & 2009
Activity Leader , Montshire Museum of Science Astronomy Day, Norwich VT	2008 & 2009
Howard Hughes Medical Institute/ Montshire Museum Mentor	Winter 2009
Facilitator , Non-Traditional Careers by Gender Workshop, Cape Cod Community College	2008

SELECTED PRESS COVERAGE AND INTERVIEWS

From Soup to Cells: Measuring the Emergence of Life, Interview in Astrobiology Magazine

Defining Life’s Digital Software, Interview with Bruce Dorminey on Forbes.com

Meet the ‘Dune’ Readers: Kim Stanley Robinson and Sara Imari Walker, NPR’s Science Friday

Dune Discussion Question: Week #2, NPR’s Science Friday

If the world is a computer, life is an algorithm, Science News Blog

Life began when algorithms took control, Science News Blog

NASA Astrobiology NPP Alumni Series: Sara Walker, NASA Astrobiology Institute

The connection between cancer biology and astrobiology, Interview with Pauline Davies

The RNA world’s last hurrah?, Interview with Suzan Mazur

Life Redefined, Interview on Huffpost Live

Little Atoms Roadtrip, Interview with Neil Denny

The Secret of Life Won’t be Cooked Up in a Chemistry Lab, The Guardian

New way to look at dawn of life: Focus shifts from ‘hardware’ to ‘software’ Science Daily

Mysterious origin of life needs a rethink, scientists argue, NBC News

A New Way to Look at the Dawn of Life, NASA Astrobiology Institute

Origin Of Life: New Study Spotlights Not Chemistry But How Living Things Store, Process Information, OpEdNews.com

The Origins of Life” –Radical New Theory Says Origin is Algorithmic vs Chemical, Daily Galaxy

Scientists Offer New Way To Look At The Origins Of Life, RedOrbit

An information-processing approach to the origin of life, Kurzweil News

Rethink creation of life in terms of information, argues new theory, Sci GoGo

ASU researchers propose new way to look at the dawn of life, ASU News

Origin of life needs a rethink, scientists argue, CBS News

A New Way to Look at the Dawn of Life, Astrobiology Magazine

There's No Place Like Home, Nature News & Views

BOARDS

Board of Directors, Blue Marble Space (501(c)(3) research and education non-profit)

Astrobiology/SETI Advisory Board, LifeBoat Foundation

MEMBERSHIPS

Foundational Questions Institute (FQXI)

NASA Astrobiology Institute

New York Academy of Sciences

Blue Marble Space Institute of Science

International Society for Artificial Life

NASA Astrobiology Institute Astrobiology & Society Focus Group

NASA Astrobiology Institute Origin of Life Focus Group

NASA Astrobiology Institute Disequilibrium, Thermodynamics and Evolution Focus Group

EDITOR

Associate Editor, Journal of Molecular Evolution

Review Editor, Frontiers in Computational Intelligence

REVIEWER

Journals: Journal of the Royal Society Interface, Journal of Systems Chemistry, FEBS Letters, Artificial Life, Journal of Molecular Evolution, Philosophy and Theory in Biology, Astrobiology Journal, Acta Astronautica, Origins of Life and Evolution of Biospheres

Funding Agencies: John Templeton Foundation, NASA