CV: LISA KALTENEGGER (PROF., DR., DIPL. ING.)

Director Carl Sagan Institute, Assoc. Prof. Astronomy, Cornell University, 312 Space Science Building, Ithaca, NY 14853, USA, e-mail: lkaltenegger@astro.cornell.edu, Tel: +16072553507, lkaltenegger@mpia.de

EMPLOYMENT & RESEARCH EXPERIENCE

Founding Director, Carl Sagan Institute: Pale Blue Dot and Beyond, Cornell	July 2014 - current
Associate Professor, Cornell University, USA	July 2014 - current
Research Associate, Harvard Smithsonian Center for Astrophysics, USA	2010 - current
Research Group Leader, Max Planck Institute, Heidelberg, Germany	2010 - 2014
Lecturer, Heidelberg University, Astronomy Department, Germany	2010 - 2014
Lecturer, Harvard Astronomy Department, USA	2008 - 2013
Research Associate, Harvard Astronomy Department	2009 - 2010
Postdoctoral Fellow SAO, Harvard Smithsonian CfA, USA	2005 - 2009
Consultant to ESA Science Dep. AURORA Technology: Netherlands	2003 - 2004
Young Engineer ESA/ESTEC: Dep. of Future Projects, Netherlands	2001 - 2002
Research fellow, Georgia Institute of Technology, USA	2000 - 2001

EDUCATION

Ph.D., Astrophysics, Karl Franzens Univ Graz / ESTEC graduated summa cum laude 2001-2005 "Search for Extraterrestrial Planets: DARWIN mission Target Stars & Array Architectures"

M.Sci., Astrophysics, Karl Franzens Univ Graz/IAC graduated summa cum laude 1995-1999 *"Extrasolar Planet Search: Formation of Extrasolar Planets and Detection Methods"*

M.Eng., Physics & Engineering, Univ. of Technology Graz graduated summa cum laude 1995-2001 *"Application of Optical Tweezers in Medicine & Biology"*

Awards & Honors

Member of the Astronomy and Astrophysics Advisory Committee (AAAC) of the National Academy of Science (NAS) 2016 -Member of the Committee on Astronomy and Astrophysics (CAA) 2016 -NASA Senior Review committee member 2016 Barrie Jones inaugural award and lecture for science and science communication, UK 2016 Kavli Foundation Plenary Lecture at the IAU General Assembly 2015 Foster Hewett Lecture, Lehigh University 2014 Christian Doppler Prize for Innovation in Science, Austria 2014 Simon Foundation Award "Simons Collaboration on the Origins of Life" 2013 European Commission Role Model for Women in Science and Research 2012 Prize lecture & Heinz Maier Leibnitz Prize for Physics of Germany 2012 Prize lecture Conrad Festa, College of Charleston 2010 Tinsley Visiting Scholar, University of Texas Austin 2009 P. Hertelendy Award and Prize Lecture for Outstanding Young Scientist at CfA 2007 2007 America's Young Innovator in Arts and Science Award 2007, Smithsonian Magazine 2007 Austrian National Award for Outstanding Academic Achievements 2005 Highest Austrian Academic Honor SubAuspices (awarded personally by Austrian president) 2004 National Award of Ministry of Educations for Outstanding Academic Achievement(PhD/MSci) 2004/2000 1996 through 2001 Awards of Academic Achievement, Tech. Univ. Graz & KF Univ Graz

PRINCIPAL AND CO-INVESTIGATOR

Science Team Member NIRISS Instrument, JWST	2014 - current
Simon Foundation Award "Simons Collaboration on the Origins of Life"	2013 – current
Co-I, NASA Transiting Exoplanet Survey Satellite (TESS) (explorer mission)	2013 - current
PI, Japanese Exoplanet Research Platform (10 year funding awarded)	2012 – current
Emmy Noether Research Group Award	2010 – 2014
PI ISSI team "1D/3D Exoplanet Atmospheres and their Characterization"	2011 – 2014
Co-I, NASA Astrobiology Institute: Advent of Complex Life	2009 – 2012

EDITORIAL BOARD OF INTERNATIONAL JOURNALS & BOOK SERIES

Astrobiology (editorial board), Encyclopedia of astrobiology, Nautilus (popular science)

INTERNATIONAL SCIENCE PANELS

NIRISS Science Team Member, JWST	2014 – current
TESS Habitability Working Group (chair)	2013 – current
Kepler Habitability Working Group (chair, co-chair)	2013 – current
ISSI team (lead) "1D/3D Exoplanet Atmospheres and their Characterization "	2007 – 2010
NASA Extrasolar Planet Analysis Group (ExoPAG) - Executive Council Member	2009 – 2014
Pale Blue Dot Initiative: Lead of the Habitability Group	2008 – 2009
ISSI team member "Evolution of Exoplanet Atmospheres and their Characterization"	2007 – 2010
TPF-I: Science Working Group: invited external expert	2005 – 2008
Darwin Science Advisory Committee: member as part of ESA & external expert	2002 – 2008

SERVICE IN THE SCIENCE COMMUNITY

Review panel: NASA, NSF, Royal Society, DLR Referee: Astrobiology, Icarus, ApJ /L, A&A, MNRS

MEMBERSHIP/PROFESSIONAL ASSOCIATIONS

IAU, AAS, AAAS, AGU, DPS, AAAC, CAA

PROFESSIONAL MANAGEMENT & TEAM BUILDING COURSES

Personal-management – leadership role, self-evaluation & positioning: 24.-26. Sep 2010, Germany Project management and Teambuilding: 23.-25. April 2011, Speyer, Germany Rhetoric and didactic training, 15-17 May 2012, Munich, Germany

PRESS RELEASES

"Carl http://www "Colorful	Sagan v.news.corne life-form_cata	Institute ell.edu/stories/ alog_helps_dis	sets 2015/05/ca	sail arl-sagan- e're alone	to institute "http://r	explore -sets-sail-ex	the plore-cosm edu/storie:	'cosmic nic-ocean s/2015/03/coli	ocean'" May 15 orful-life-
form-cata	log-helps-dis	cern-if-we-re-	alone		1100.00		000,000,000		March 15
"Finding in	nfant Earths	and potential	life just go	t easier" l	http://ne	ws.cornell.ed	du/stories/2	2014/12/findin	g-infant-
earths-an	d-potential-li	fe-just-got-eas	sier						Dec 14
"The mos	t exciting pla	nets for habita	ability yet."						
http://ww	w.mpia.de/P	ublic/menu_q2	2e.php?Akt	tuelles/PF	R/2013/P	R_2013_05	PR_2013_	_05_en.html	April 13
"Heinz M	aier-Leibnitz	Prize, Award	ls to Hono	or Scientif	ic Achie	evements of	Six Early-	-Career Rese	archers"
http://wwv	v.dfg.de/en/s	ervice/press/p	press_relea	ases/2012	/press_r	elease_no_	10/index.ht	ml	May 12
"Can We	Spot Volcano	oes on Alien V	Vorlds?" ht	tp://www.o	cfa.harva	ard.edu/new	s/2010/pr2	01014.html	Sep 10
"Avatar's	moon Pan	dora could be	e real" http	o://www.cf	a.harva	d.edu/news/	2009/pr20	0925.html,	Dec 09
"Finding	Twin Earths	s:Harder Tha	in We Tho	ught" http	://www.c	fa.harvard.ed	u/news/200	9/pr200909.htm	Mar 09
"3 Top Y	oung CfA A	stronomers I	Honored"	http://wwv	v.cfa.hai	vard.edu/pre	ess/2007/p	r200730.html	Nov 07
"Astrono	mers reveal	l first Alien ID) chart" htt	p://www.c	fa.harva	ard.edu/pres	s/2006/pr0	625.html	Oct 06
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LANGUAGES

German: native E	English,Spanish: fluent	Portuguese: good	Italian,Dutch: basic
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MEDIA COVERAGE

NYT, CNN, Washington Post, The Economist, Smithsonian Magazine, BBC, New Scientist, USA-Today, USA Weekend, Christian Science Monitor, AP, National Geographics, NOVA, NPR, El Mercurio, Focus, Spiegel, WDR, ZDF, Die Zeit, Wir sind Kaiser, Radio New Zealand, SZ, webbased sites, int. Daily newspapers

LECTURER AT CORNELL UNIVERSITY (2015-CURRENT), HEIDELBERG UNIVERSITY (2010 - 2013), HARVARD UNIVERSITY (2008 - 2010)

Developed:

- High quality on-line calculation training lectures, that discuss the physical nature and evolution of stars and planets in our Milky Way Galaxy, and how observing stars in distant galaxies enables us to map the Universe.
- Set the material in context with current day event and culture.
- Interactive teaching concepts and experiments
- Weekly quizzes that probe the understanding of scientific concepts
- Midterm and Final exames that develop scientific thinking and understanding
- Innovative interactive telescope activities (daytime and evening sessions)

Graded quizzes, exames and lab reports

Gave feedback that develops the scientific thinking of non-science students further. Provided support to students in a challenging practical environment of using telescopes. Interacted with students on any problems and questions related to the course

CORNELL UNIVERSITY

OPEN QUESTIONS IN EXOPLANETS AND PLANETARY SYSTEMS (100%)

Astrophysics Lecture (graduate course level)

Scope: Lecture course focussed on the open questions and newest research on extrasolar planets as well as Solar system research research at a graudate student level (for astronomy, planetary science and physics graduate students). It includes projects and homeworks for the graduate students that makes them develop new tools and understanding of exoplanets.

ASTRONOMY 1101, FROM BLACK HOLES TO NEW WORLDS (100%)

Astrophysics course for non-science majors (undergraduate level)

Scope: Introduction to the fascinating worlds of Astronomy for non-science majors spannign the arch from Black Holes to Undiscovered worlds and our place in the universe

EXOPLANETS AND PLANETARY SYSTEMS (50%)

Astrophysics Lecture (Master & undergraduate course level)

Scope: Lecture course focussed on the newest research on extrasolar planets as well as Solar system research research – Life as a Planetary Phenomenon. This course explores in an interdisciplinary setting the concepts behind search for life inside and outside the Solar System using current newsstories and media. It is focussed on interdisciplinary research between astrophysics, biolog and geology.

HEIDELBERG UNIVERSITY

ASTROPHYSICS & ASTROBIOLOGY II (100%)

Physics Lecture (Master & graduate course level)

Scope: Lecture course focussed on interdisciplinary research – Life as a Planetary Phenomenon. This course explores in an interdisciplinary setting the concepts behind extrasolar planet search, characterisation and the search for life in the universe and extreme nihes on Earth. It is focussed on interdisciplinary research between astrophysics, biolog and geology.

ASTROPHYSICS & ASTROBIOLOGY RESEARCH SEMINAR (33,50,100%) SPRING 2012, FALL 2012, FALL 2013

Physics Mandatory Seminar (co-teach with M. Hausmann (biophysics), M. Trieloff (geophysics)) Scope: Research seminar focussed on interdisciplinary research between astrophysics, biolog and geology. Students develop talks from discussions and literature search and lead discussion on topics

IMPRS RESEARCH SEMINAR (50%) CO-CHAIR, CHAIR

Heidelberg Joint Colloquium weekly colloquium of the five Physics and Astronomy Institute in Heidelberg. Organizers (with C. Dullemond, we alternate Chair & co-Chair position each semester)

SUMMER 2015

FALL 2015

SUMMER 2016

FALL 2013

FALL 2012, SPRING 2013, FALL 2013

Curriculum Vitae

IMPRS RESEARCH SEMINAR (25%)

IMPRS mandatory research seminar for freshmen (co-teach with C. Fendt, K. Meisenheimer) Scope: Research seminar for first year PhD students in the international PhD program am MPG and University of Heidelberg, focussed on the most important research areas in astronomy.

INDEPENDENT ADVISORY COMMITTEE FOR ALL PHD STUDENTS AT MPIA (60%) FALL 2010 - CURRENT Independent Advisory Committee of 5 senior researchers (committee: T. Herbst, W. Brandner, H. Klahr, C. Bailer-Johns, L. Kaltenegger) mandatory for all PhD students at MPIA to examine progress of PhD thesis and offer advise including carreer advice (1x year/student (1.5hr), 50 PhD students)

HARVARD UNIVERSITY

Science A-36 : OBSERVING THE SUN AND THE STARS (HARVARD) (50%)FALL 2008, FALL 2009Harvard Core Course and Laboratory Session (co-teach with J. Grindley)FALL 2008, FALL 2009

Scope: Direct observations of the Sun and the stars, to learn how we can understand the Galaxy and the Universe from stars. In small sections, students conduct hands-on telescopic observations of the Sun and stars using modern instrumentation to explore their energy output, relative distances, temperatures, composition, and their life histories.

ASTRONOMY 1 THE ASTRONOMICAL UNIVERSE (CO-TEACH W. S. STEEL) (HARVARD) (50%) SPRING 2008 Scope: Introductory course for non-science concentrators, which provides a basic understanding of our Universe. Basic principles of physics & observational astronomy using elementary algebra.

SCIENCE A-54. LIFE AS A PLANETARY PHENOMENON (2 CLASSES FOR SASSELOV) **(HARVARD) SPRING 08** Scope: This course focuses the relationship between life and the planet on which it resides and the scientific quest to understand where life might thrive beyond Earth.

TEAM TUTOR: Team Management and Group Leadership (100%)

ESA/ASA Summerschool Alpbach (15 students, 2 week intense course)

Scope: 2 week intense design course for European science/engineering graduate and undergraduate students to provide new ideas & mission concepts for small satellites.

- Building the team, leading discussions
- Initiating brainstorming and new design concepts
- Teaching main design and science key points
- Organizing the final report and 1 hour presentation of the mission by all students
- Teaching students how to interact in an international, interdisciplinary environment

ADVISOR (100%)

Jack O'Maley-James (Research Associate)	2015-current
Sidharth Hegde (Research Associate)	2015-current
Ramses Ramirez (Research Associate)	2014-current
Illeana Gomez (Research Associate)	2013-current
Jack Madden (graduate student)	2015-current
Thea Kozakis (graduate student)	2015-current
Sarah Rugheimer (Research Associate, now Simons Fellow, St Andrews Uni.) Yan Betremieux (post-doc, now JPL) Yamila Miguel (post-doc, now Poincare Fellow Nice) Andras Zsom (post-doc, now MIT) Taisiya Kopytova (graduate student Heidelberg) (Thesis co-chair) Sidharth Hegde (graduate student Heidelberg) (Thesis chair) Hiroyuki Kurokawa (graduate student Tokyo/Heidelberg) (Thesis co-chair) Sarah Rugheimer (graduate student Harvard) (Thesis chair) Anna Penzlin (Bachelor thesis, Heidelberg) Mathias Samland (Bachelor thesis, Heidelberg) Maxence Levre (undergraduate summer project Univ. Paris) Yunfeng Zhe (undergraduate summer project Princeton) Wade Henning (undergrad student Harvard EPS) Leah Kilvert (undergraduate Summer Project SAO)	2015 2011-2014 2010-2011 2012-2014 2012-2014 2011-2015 2011-2012 2008-2015 2013 2013 2013 2013 2013 2013 2009-2010 2008

July 2009, 2007, 2005

VISITING PROFESSOR

Valongo Winterschool, Rio, Brazil (4 x 1.5hr classes)	July 2013
Univ. Hamburg (graduate college) (6 x 1.5hr classes)	April 2012
SPASA summerschool, Sao Paulo, Brazil (4 x 1.5hr classes)	Dec 2011
IMPRS summerschool (Heidelberg) (4 x 1.5hr classes)	Aug 2011
Ecole Normale Supérieure de Lyon	Nov/Dec 2006

CONFERENCE ORGANIZER

SCIENTIFIC ORGANIZING COMMITTEE (SLEF LIMITED NUMBER)	
ExoClimes, Vancouver, USA	Aug 16
Extreme Solar Systems III, Hawaii, USA	Dec 15
From Disks to Exoplanets, Hawaii, USA	Dec 13
AGU From Earth to Exoplanets, Annapolis, USA	Jun 13
EGU Characterization of Exoplanets, Vienna, Austria	April 13
From Stars to Exoplanets conference, Munich, Germany	Sep 12
Exoplanet Atmosphere Characterization, MPIA summer conference, Heidelberg, Germany	Jul 12
New Quests in Stellar Astrophysics. III. Puerto Vallarta-Mexico	Mar 12
Planets around Stellar remnants, Arecibo, PR	Jan 12
GMT workshop, Harvard, Boston	Oct 11
DPS, Nantes, France, Super-Earths and Life	Oct 11
AG session Exoplanets	Sep 11
EGU -Characterization of Exoplanets	April 11
EGU - Habitability and Characterization of Exoplanets	May 10
DPS (Division for Planetary Sciences) 2009, Puerto Rico, 4 exoplanet sessions	Oct 09
Goldschmidt - Dynamics of Early Earth-Like Planets and Super-Earths, Davos	July 09
Cosmic Cataclysms and life ESLAB 08, Frascati, Italy	Nov 08
Super Earth Workshop, Aspen, USA	Aug 08
Goldschmidt - Early Life, geochemical and dynamical aspects, Vancouver	July 08
AbSciCon 2008, Santa Clara, CA: Plenary Future Missions and what they can detect	April 08
AbSciCon 2008, Santa Clara, CA: Habitability on Super Earths	April 08
Physics and Astrophysics of Planetary Systems, Les Houches School, France	Aug 08
European Planetary Science Congress, Berlin: Biomarkers and their detectability	Sept 07
European Planetary Science Congress, Potsdam: Concepts of Habitability	Sept 06
LOC: "Transiting Planets", IAU Symposium 253, Cambridge, USA	May 08
Journal club: Harvard EPS and CfA Journal club (weekly interdisciplinary meeting)	07/08

INVITED SPEAKER

INVITED COLLOQUIA (SELF-LIMITED NUMBER OF COLLOQUIA PER YEAR)

'Spectral evolution of an Earth-like planet, Search for signs of life, Super-Earths and Life'

IAU General Assembly Kavli Plenary Lecture	Aug 15
MacMasters University, Hamilton, Canada	March 15
CRESS University, Toronto, Canada	March 15
Lehigh University	Sep 14
Max Laue Colloquium, Berlin	Nov 14
Penn State University, Penn State (A. Wolszczan)	Jan 14
University, Tuebingen (W. Kley)	Nov 13
University Wyoming (A. Meyers)	Oct 13
Institute for Space Research, Graz (W. Baumjohann)	June 13
Leiden University, Leiden (W.Brandel)	April 13
HITS, Heidelberg (V. Springel)	April 13
Durban Univeristy, South Africa (K. Moodley)	March 13
Cornell University (J. Lunine)	Jan 13

Curriculum Vitae	L. Kaltenegger
ESO (B. Leibundgut)	Dec 12
MPE, Garching (R. Bender)	Nov 12
LMU, Munich (B. Ercolani)	Aug 12
MPG for Chemistry Mainz (J. Lelieveld)	July 12
Universitaet Vienna (M. Guedel)	May 12
Paul Scherrer Institute (S. Actis)	May 12
MP for Radio Astronony Bonn (U. Wyputta)	April 11
University of Bern (W. Benz)	March 11
UMass Amherst (R. Gutermost)	Jan 11
UNAM, Mexico (A. Segura)	Aug 10
Princeton (D. Spergel)	May 10
Univ. Vienna (E. Lohinger)	May 10
Univ. Montreal (R. Lamontagne)	April 10
College of Charleston, Conrad D. Festa Prize Lecture in Science & Mathematics	Feb 10
Wesleyan Univ. (S. Rethfield)	Nov 09
Univ. Texas Austin (N. Evans, prize lecture)	May 09
Dartmouth (B.Chabey)	Jan 09
Univ. Heidelberg (R. Klessen)	May 08
Univ. Colorado (F. Bagenal)	April 08
CfA (C. Alcock, Prize lecture)	Sept 07
Michelson Science Center, L.A. (G. van der Belle)	May 05
ESTEC (M. Fridlund)	Sept 04

INVITED SPEAKER AT INTERNATIONAL CONFERENCES (SELF-LIMITED NUMBER)

IAU General Assembly, Hawaii	Aug 15
AAAS, San Jose, CA	March 15
Falling Walls Conference, Berlin	Nov 14
Exo-Life, Vienna, Austria	May 12
EGU, Vienna, Austria	April 12
New Quests in Stellar Astrophysics. III. Puerto Vallarta-Mexico	Mar 12
Origins of Life, Gordon Conference, Texas, USA	Jan 12
Planets around stellar remnants, Puerto Rico, USA	Jan 12
AGU, San Francisco, USA Hereaus Exoplanet Meeting, "Super-Earth and Life", Germany IAUC280, Toledo, Spain "Characterizing a Habitable Planet – an interdisciplinry puzzle" MIT exoplanet symposium "Exoplanet research in the next 50 years" Flagstaff Extrasolar Planet meeting, USA "Observing Earth-like planets with JWST" IAUS276, "Biomarkers in Exoplanet Atmospheres" Royal Society Mtg, "SuperEarths and Life" Megastructures, Crete "Exoplanet Research and Mega sturctures" AbGradCon, "SuperEarths and Life" EGU, Austria, "Characterizing Atmospheric Biomarkers" ESF, Austria, "Biomarkers in planetary atmospheres" KAVLI Institute, "Spectral characterization: SuperEarths to Earths" Astrobio2010, Chile, "Spectral Characterization of exoplanet Atmospheres" SOCHIAS, Chile, "Extrasolar planetary Atmospheres"	Dec 11 June 11 May 11 May 11 May 11 Oct 10 Sep 10 July 10 June 10 May 10 April 10 Jan 10 Jan 10
Naples, Italy, 21st Colloquium on High Res. Mol.Spectroscopy, "Spectral Evolution"	Aug 09
ESA/ASA summerschool 2009, Austria, "Atmospheric Biomarkers"	July 09
HSTcl Baltimore, USA, "Search for Habitability on exoplanets"	May 09
EGU, Vienna, "Spectral Evolution of Habitable Planets"	April 09
Exeter Univ. workshop, UK, "Modeling exoplanet atmospheres"	Sept 08
ESO Elba 2008, Italy, "Atmospheric Biomarkers and their detectability"	Sept 08
HITRAN conference, USA, "Detectability and Challenges on Atmospheric Biomarkers"	July 08
Nantes Super-Earth Conf., France, "Atmospheres of Super-Earths"	June 08

Curriculum Vitae	L. Kaltenegger
AbSciCon 2008, USA, "Habitability of Super Earths"	April 08
Les Houches Winter School: "Biomarkers on exoplanets"	Feb 08
Max Planck Symposium, Berlin: "Characterizing the Pale Blue Dot"	Feb 08
Darwin mtg, IAS, Paris: "Comparative planetology and the search for life"	Dec 07
European Planetary Science Congress, Berlin: "Biomarkers and their detectability"	Sept 07
Alpbach Summer School, Austria, "Signature of life on extrasolar planets"	July 07
ESO symposium, Santiago de Chile: "Exoplanet search, Biosignatures, and targets"	March 07
3 rd International TPF/Darwin Workshop, L.A.: "Evolution of Earth's atmosphere"	Nov 06
European Planetary Science Congress, Berlin: "Evolving Earth"	Sep 06
Pale Blue Dot III, Chicago: "Techniques and future observation of terrestrial planets"	Sep 06
ESOF2006, Munich: "Possible spectra signature of life in planetary atmosphere"	May 06
AbSciCon 2006, D.C.: "Future missions on extrasolar planets and what they can tell us"	March 06

INVITED DEPARTMENT SEMINARS

2012 DLR Berlin, NYU; 2009 Princeton, Brown Univ., Univ. Oxford, MIT, Univ. Texas San Antonio Univ. Texas Austin; 2008 Open Univ, Univ. Oxford, CfA, ITC, Univ Heidelberg, Univ. Arizona; 2007 Univ. Bordeaux, Univ Vienna, Arizona State University, Museum of Natural History, Univ. of Colorado, Boulder, CalTech; 2006 Observatory Geneva, Observ de Paris, Meudon, ENS Lyon; 2006 Univ. de Paris Sur, Paris, Penn State Univ., CfA, OIR, Univ. of Vienna

SCHOOL MATERIAL - TEACHER WORKSHOP & ADVISER

CLASSES FOR STUDENTS (HIGHSCHOOL & K12) University for kids, Heidelberg (150 kids) – Searching for Aliens Tschira student academy (30 kids)– Searching for Life in the universe TEACHERS WORKSHOP (HIGHSCHOOL & K12) HdA Teachers workshop MPIA – Astronomy in the classroom CfA Teacher workshop - "Search for Planets and Life" for the classroom MIT Teachers workshop – How to use astronomy in the classroom

Adviser for School Material development (Highschool & K12)

"Smithsonian in Your Classroom"

"Universe" (http://www.smithsonianeducation.org/universe)

SIYC is Smithsonian Education's free biannual publication for teachers. Each issue focuses on a single subject and includes a background article, lesson plans, and an activity to complete with your class and gives students a hands-on activity for putting the immensity of the universe in perspective. SIYC is a free publication and can be downloaded in its entirety from the link above. "Problem solving with Smithsonian experts" July 10 http://www.smithsonianconference.org/expert/planets-like-ours/

Exoplanets and Beyond, CfA (bringing cutting-edge science into the K-12 classroom) 2008 - current

The Habitable Planet Project, Harvard (web-based initiative for the classroom)2007 -currentEve on the Sky, CfA education department, a dialogue with astronomers2007

Eye on the Sky, CfA education department, a dialogue with astronomers http://www.cfa.harvard.edu/sed/projects/eots.html

SELECTED HIGHLIGHTS PUBLIC ENGAGEMENT

MEDIA AWARD: Smithsonian Magazine Young Innovator 2007 Award	July 07
SCIENTIFIC ADVISOR & INTERVIEWS (TV, PLANETARY SHOWS & PRESS)	
WDR Quarks & Co Science Show, Science Talk Austria, Stoeckel Show	2013
Nano-science magazine for students, WQ knowledge show ZDF, Talk am Hangar 7, S	Servus TV 2012
Hubble TV show, Servus TV	2011
Planetarium Show "Search for other Worlds" Boston Museum of Science	Feb 11 – current
"Liquid Universe," The Universe, History Channel	2009
"Alien Earths," NOVA	2008
Science at Stake: Web-based initiative for journalists and general public	2006 – 2008

ART & SCIENCE LECTURES AND DISCUSSIONS

May 12

Nov 12, 13

Dec 11, 12

2010, 2012

April 10

Sep 05

Curriculum Vitae	L. Kaltenegger
Ars Electronica Artist Lecture	July 12
New School (NYC, Art and Science), NYC	Dec 11
Bridge the Gap (Art&Science), NYC	Dec 09
http://storefrontnews.org/exhibitions_events/events?t=71	
WEB-BASED INTERVIEWS & TALKS & OUTREACH	
"Thousand Worlds in the Sky", Nautil.us, NYC	May 13
"Exoplanets and the fascination of science", HdA, Germany	March 12
"Problem solving with Smithsonian experts"	July 10
http://www.smithsonianconference.org/expert/planets-like-ours/	
"Eye on the Sky: An Astronomy Dialog" (CfA web-based TV interview)	Feb 07
http://www.cfa.harvard.edu/sed/projects/eots.html	
"Detecting Life Beyond Earth", PBS online Quiz	Sep 07
http://www.pbs.org/wgbh/nova/space/alien-life.html	
BOOKS/ PUBLIC ARTICLES	
Reading a Planets Spectral Fingerprint, Sky & Telescope (Germany)	Sep 2013
Worlds without End, Nautil.us Magazing, NYC	July 2013
Searching for a Second Earth, Spektrum der Wissenschaften July 2013	
Search for Extrasolar Planets, Physics Today (German)	Feb 12
Encyclopedia on Astrobiology (field editor on planetary science & author of 14 entries)	2011
Year Million (chapter on life among the stars)	2008
PUBLIC LECTURES	
Planetarium Klagenfurt, Austria "Search for exoplanets and Life in the universe"	Nov 13
Natural History Museum Salzburg, Austria "Search for exoplanets and Life in the univers	e" Oct 13
Yuri's night Vienna, Search for a Second Earth	April 13
Mindt Student Academy	Oct 12
Planetarium Muenster "Search for exoplanets and Life in the universe"	Oct 12
Keynote lecture NaWik Center for Science communication	Oct 12
Prize lecture Heinz Maier Leibnitz	May 12
German-American Platform, Heidelberg "How to find signs of life in the universe?"	May 12
Children's university 2012, "Den Alien auf der Spur" Heidelberg	April 12
Hous of Astronomy, Heidelberg "Life in the universe?"	July 11
Heidelberger star hour "How to find a habitable planet"	July 11
Heidelberger star nour "Searching for signs of life in a planet's spectra"	July 11
Renaissance weekend, Aspen	Sep 10

PUBLICATION LIST

FIRST- AND SECOND-AUTHOR ARTICLES REFEREED JOURNAL (& LISA'S TEAM PAPER)

- 1. Rugheimer, S.; **Kaltenegger, L**.; Segura, A.; Linsky, J.; Mohanty, S., Effect of UV Radiation on the Spectral Fingerprints of Earth-like Planets Orbiting M Stars, ApJ, 809, 1, 16 pp., 2015
- 2. Rugheimer, S., Segura, A., **Kaltenegger, L**., Sasselov, D. "UV Surface Environment of Earthlike Planets Orbiting FGKM Stars Through Geological Evolution ApJ 806, 1, 137, 10 pp., 2015
- 3. Hegde S., Paulino-Lima, I., Kent, R., **Kaltenegger L**, Rothschild L, Surface biosignatures of exo-Earths: Remote detection of extraterrestrial life, PNAS, 112, 13, 2015
- 4. Bétrémieux Y.; **Kaltenegger L**., Refraction in planetary atmospheres: improved analytical expressions and comparison with a new ray-tracing algorithm, MNRS, 451, 2, p.1268-1283, (2015)
- Miguel Y.; Kaltenegger L; Linsky, J.L.; Rugheimer S., The effect of Lyman alpha radiation on mini-Neptune atmospheres around M stars: application to GJ 436b, Monthly Notices of the Royal Astronomical Society, Volume 446, Issue 1, p.345-353, 2015

- 6. Ramirez, Ramses M.; **Kaltenegger, L**, The Habitable Zones of Pre-main-sequence Stars, The Astrophysical Journal Letters, Volume 797, Issue 2, article id. L25, 8, 2014
- 7. Betremeux Y, **Kaltenegger L**., Impact of atmospheric refraction: How deeply can we probe exo-Earth's atmospheres during primary eclipse observations?, The Astrophysical Journal, Volume 791, Issue 1, article id. 7, 12, 2014
- 8. Miguel, Y.& **Kaltenegger, L**., Exploring Atmospheres of Hot Mini-Neptunes and Extrasolar Giant Planets Orbiting Different Stars with Application to HD 97658b, WASP-12b, CoRoT-2b, XO-1b, and HD 189733b, ApJ, 780, 2, article id. 166, 13, 2014
- 9. **Kaltenegger, L.** & Haghighipour N., Habitability of Binary Systems I: S-type binaries, ApJ, 777, 2, 165, 11 pp., 2013
- 10. Haghighipour N. & **Kaltenegger, L**, Habitability of Binary Systems II: P-type binaries, ApJ, 777, 2, 166, 13 pp., 2013
- 11. **Kaltenegger, L.**, Sasselov D., Rugheimer S., Water Planets in the Habitable Zone: Atmospheric Chemistry, Observable Features, and the case of Kepler-62e and -62f, ApJL, 775, 2, L47, 5, 2013
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