Curriculum Vitae for Dr. Peter L. Capak

Summary of Qualifications

A demonstrated track record of sustained excellence and leadership in science and management in astrophysics and massive-scale data analytics with a track record of mentorship and improving diversity. Proven track record in creating an inclusive mentoring environment that fosters diversity including wining funds to create diversity programs. Has raised over $4 million USD in grants as PI and over $300 million USD as senior Co-I from international agencies. In the top 1% of cited authors, with more than 300 refereed publications, including two as first author in Nature, and an h-index of 97. Extensive experience carrying out instrument development, systems engineering, and project management on a range of software and hardware projects.

Education

2004	Ph.D. Astronomy, University of Hawaii Advisor E.M. Hu
2002	M.Sc. Astronomy, University of Hawaii Advisor J. Tonry
1999	B.Sc. Honors Physics and Astronomy, University of British Columbia Advisor P. Gregory

Professional Experience

2020 – Present	Architect of Perception Systems for Augmented and Virtual Reality at Facebook/Oculus
2019 – 2020	Science Lead of NASA SPHEREx Science Center
2019 – 2020	Senior Research Scientist and Member of the Professional Staff, Caltech
2018 – 2020	International Associate at the Cosmic DAWN Center, University of Copenhagen
2012 – 2019	Calibration and Software Module lead at Euclid NASA Science Center at IPAC (ENSCI), Associate Research Scientist and Member of the Professional Staff, Caltech
2012 – 2016	Enhanced Imaging Products lead at Spitzer Science Center, Associate Research Scientist and Member of the Professional Staff, Caltech
2010 – 2012	Enhanced Imaging Products lead at Spitzer Science Center, Associate Research Scientist, Caltech
2007 – 2010	Scientist at Spitzer Science Center, Assistant Research Scientist, Caltech

Professional Experience (Continued)

2007	Senior Postdoctoral Fellow, California Institute of Technology
2004 – 2007	Postdoctoral Scholar, California Institute of Technology
2000 – 2004	Research Assistant, University of Hawaii
2000	Lecturer, University of Hawaii
1999 – 2000	Teaching Assistant, University of Hawaii
1998 – 1999	Research Assistant, University of British Columbia
1997 – 1999	Teaching Assistant, University of British Columbia

Scientific Leadership

2019 – 2020	Lead of SPHEREx science center at IPAC
2018 – 2020	Co-lead of the Tri-Agency (NASA, NSF, DOE) cosmology observation coordination group
2017 – 2020	Lead of the US CASTOR science team
2016 – 2020	Lead of SPHEREx instrument and cosmology simulation pipeline
2016 – 2020	Co-Lead of Complementary Observations Group (external-data) for Euclid
2016 – 2020	WFIRST SIT Cosmology Photo-z lead
2013 – 2020	Euclid NISP ground segment calibration lead
2013 – 2020	Lead of external spectroscopy for Euclid Mission
2013 – 2020	Lead of the SPLASH collaboration
2012 – 2019	Lead of US Euclid extragalactic science working group
2010 – 2018	Lead of the COSMOS collaboration
2012 – 2015	Lead of Spitzer frontier fields initiative
2012 – 2014	Lead of CCAT extragalactic science working group

Honors and Awards

2013	NASA Public Service Achievement Award as lead of the "Spitzer Enhanced Imaging Products and Source List" project.
2010	NASA Public Service Group Achievement Award for "IRAC Warm Instrument Characterization".
2007	Promotion to Senior Research Fellow at Caltech
2004	University of Cambridge IoA Fellowship (declined to take position at Caltech)
2004	University of Hawaii Graduate Student Research Award
1994	University of British Columbia David Crombie Entrance Scholarship

Patents

U.S. Patent 20,180,363,277-A1 "Microfabricated passively and/or actively cooled apparatus for highly efficient, low cost atmospheric water generators", 2017-06-16

Grants (>$4 Million as PI, >$312 Million as senior Co-I)

2019-2020	$242 million, PI: J. Bock, SPHEREx Mid-Scale explorer
2019-2020	$1.1 million, ADAP, **PI: P. Capak,**: "Wide Field Studies of the Early Universe"
2018-2020	$300,000, NSF-IRES, PI: K. Whitaker, "Exploring New Horizons in the Observable Universe at the Cosmic Dawn Center of Excellence in Copenhagen"
2018-2020	$58,000, Amazon Cloud Credit Grant, **PI: P. Capak**, "SPHEREx mission development and exploring high-dimensionality manifold mapping"
2018-2020	$724,000 HST Cycle-25, **PI: P. Capak** , C. Steinhardt, M. Jauzac: "BUFFALO: Beyond the Ultra-Deep Frontier Fields And Legacy Observations"
2018-2020	$10.3 million ($67 million DKK), Danish National Science Foundation, PI: Sune Toft: "The Cosmic Dawn Center"
2016-2020	$80,000 NASA Keck, PI. D. Masters, "C3R2: The Complete-Calibration of the Color-Redshift Relation Part 2"

Grants (Continued)

2016-2020	$624,000, Spitzer Cycle-13, **PI: P. Capak,** "The Euclid/WFIRST Legacy Survey"
2016-2020	$6 million WFIRST Cosmology Science Investigation Team, PI: O. Dore, "Precision Photometric Redshifts for Cosmology"
2015-2020	$4.5 million + $2 million matching funds, NASA-MIRO, PI: B. Mobasher, "FIELDS: Fellowships In Extremely Large Data Sets"
2012-2020	$42 million over 15 years (~$800,000 allocated to Capak so far), US Euclid Science Team, PI: J. Rhodes
2014-2018	$228,000 (180,000 Euro), ANR, PI: O. Ilbert**,** "Photo-z and physical parameters with SPLASH"
2016-2018	$80,000 NASA Keck, PI. D. Stern, "C3R2: The Complete-Calibration of the Color-Redshift Relation"
2014-2018	$775,000 Cyle-10 Spitzer Exploration Science Program, **PI: P. Capak**, "SPLASH2: Finishing The Spitzer Large Area Survey with Hyper-Suprime-Cam"
2016-2018	$240,000 Caltech Presidents Fund proposal, PI. J. Cohen, "C3R2: The Complete-Calibration of the Color-Redshift Relation"
2015-2018	$324,920 WFIRST Preparatory Science Proposal, **PI: P. Capak**, "Precision Photometric Redshifts for Cosmology"
2014-2018	$138,722 HST Cycle-22, **PI: P. Capak**, "A Detailed Dynamical And Morphological Study Of 5<z<6 Star, Dust, and Galaxy Formation With ALMA And HST"
2014-2018	$200,000 Chandra XVP, PI: G. Basinger, "Black Hole Fingerprints from Cosmic Dawn to Cosmic Noon"
2014-2018	$200,000, ADAP, PI: G. Hasinger, "Fingerprints of the first black holes? Crosscorrelationg the Near-Infrared and X-ray background in COSMOS"
2014-2016	$1 million NASA SMD, PI. J. Bock, "SPHEREx: An All-Sky Near-Infrared Spectral Survey"
2014-2015	$45,490 HST Cycle-21, **PI: P. Capak**/A. Karim, "Formation of the primordial Red Sequence"

Grants (Continued)

2013-2015	$642,000 Cycle-9 Spitzer Exploration Science Program, **PI: P. Capak**, "SPLASH: The Spitzer Large Area Survey with Hyper-Suprime-Cam"
2012-2018	$400,000 Chandra XVP, PI. F. Civano "COSMOS-Legacy, Completing the COSMOS Chandra Survey.
2012	$136,984, Herschel Observing Proposal, **PI: P. Capak**, "Understanding Obscured Star Formation, Active Galactic Nuclie, and Dust Formation at z~5" (Observations not carried out)
2011-2013	$190,768, HST Archival Proposal, PI: B. Mobasher, "Galaxy Evolution Studies from High Precision Panchromatic Photometry of Hubble and Spitzer Survey Fields"
2011-2013	$57,220, Cycle 8 Spitzer Program, PI: C. Scarlata, "The Spitzer IRAC-MIPS Extragalactic Survey: imaging of the South Ecliptic Pole"
2009-2012	$143,000, Cycle 5 Spitzer Program, **PI: P. Capak,** "A detailed study of the high redshift universe"
2009-2012	$264,000, ADP Program, PI: H. Teplitz, "SAFIRES: Spitzer Archival FIR Extragalactic Survey"
2009-2011	$621,000, Spitzer Exploration Science Program, PI: K. Sheth "The Spitzer Survey of Stellar Structure in Galaxies"
2008-2011	$720,000, Cycle 5 Spitzer Legacy Program, PI: N. Scoville, "The Green Valley IRS Legacy Survey"
2007-2010	$450,000, Cycle 8 Chandra program, PI: M. Elvis, "The Chandra COSMOS Survey"
2006-2009	$1,029,000 Cycle 3 Spitzer program, PI: D. Sanders , "SCOSMOS: The MIPS Deep Survey of the COSMOS 2-Sq Degree Field"
2005-2008	$362,000 Cycle 2 Spitzer program, PI: D. Sanders, "SCOSMOS: The Spitzer Deep Survey of the HST COSMOS 2-Degree ACS Field"

Observing Experience and Successful Proposals

Space	Spitzer (>10,000h), Chandra(>4Ms), GALEX (>500Ks), Herschel (>1000h), Hubble Space Telescope (>800 orbits), XMM (>400Ks)
Optical/IR	CFHT (>500h), CTIO (>15 nights), Gemini (>5 nights), Keck (>100 nights), KPNO (>5 nights), Palomar (>10 nights), Subaru (>200 nights), UH2.2m (>100 nights), UKIRT (>20 nights), VISTA (>2000h)
Sub-mm	ALMA (>200h), CARMA (>20h), CSO (>10 nights), IRAM 30m (>30h), PdBI (>50h), SMA (>10 h)
Radio	VLA (>300h), J-VLA(>1000h), VLBA (>100h)

Community Service

Resource Allocation	NSF proposal review panel DOE small project cosmology recommendation panel Canada (CanTAC) IRTF Japanese Subaru proposal review board NRAO (VLA, J-VLA, VLBA, Green Bank) Taiwanese CFHT University of Hawaii
Publication Referee	Referee for Nature, ApJ, ApJL, MNRAS and A&A.
Review Panels	Tri-Agency joint processing working group. Member of the Tri-Agency observation planning group. Planck Point Source Pipeline review board.
Other	Member of the Caltech Children's Center Board of Directors. Member of the Strategic Planning and Development Committee for Caltech Child care needs.

Management Experience

SPHEREx	Science lead for the science center. Responsible for setting up the center, interfaces with science team, and designing the science functions of the pipeline. Lead development of the instrument simulator and cosmology pipeline for the mission development.
Euclid	Co-leading efforts to obtain ground-based data for the Euclid mission, and co-leading the effort to define and obtain a spectroscopic calibration sample for the weak lensing cosmology. Also leading the team of programmers and scientists to develop pipeline modules for the Euclid near-infrared pipeline at IPAC.
COSMOS	Collaboration lead between 2010-2018. Coordinated the efforts of over 150 researchers worldwide, leading major North America based funding and observing proposals. Successfully developed some of the largest programs ever granted on Spitzer, Chandra, J-VLA, Keck, Subaru, VLT, and ALMA. Oversaw the observation, reduction, and archiving of all ground based optical and near-IR imaging.
Spitzer Archive	Responsible for planning and implementation of a pipeline that produced science quality mosaic images and catalogs for all IRAC and MIPS data taken during the 5.5 year Spitzer Cryogenic mission. These data are part of the Spitzer Heritage Archive. This involved leading a team of ~15 scientists, data base managers and software engineers along with an oversight board to develop and implement the techniques, software, and quality analysis procedures needed to produce these high-level data products.

Software Project Development

NASA SPHEREx	Science lead of the SPHEREx science center, including oversight of pipeline software development.
NASA SPHEREx	Developed end-to-end (light to measurement) simulations for cosmology during the SMEX and MIDEX mission concept development.
Cosmology	Lead development of unsupervised and manifold based machine learning techniques to model cosmology data for a range of projects including Euclid, WFIRST, and SPHEREx in order to estimate redshifts (distances) to galaxies as well as their other properties.
ESA/NASA Euclid	Lead of calibration for Euclid Near-Infrared Imaging Spectrograph (NISP) and Photo-z Ground segment software.
Cosmology	Lead development of high-performance computing code for photometric redshifts to support the Euclid, WFIRST, and the SPHEREx mission. Involved optimizing, vectoring, parallelizing, existing code and porting it to special purpose hardware such as Xeon Phi and NVIDIA GPU systems as well as developing cloud (AWS) based cloud implementations of the system.
NASA Spitzer	Lead development of a software pipeline and computing system that autonomously categorized, reduced, masked, and photometered all IRAC and MIPS Spitzer Cryogenic data. The system also performed automated QA on the resulting data.
Infrared Imaging	Developed the algorithms and procedures used by Terapix at IAP in Paris for the first pass reduction (bias subtraction, flat fielding, cross talk correction) CFHT WIRCAM data that was later adapted for VISTA.
Imaging	Developed a reduction pipeline for mosaic CCD and IR instruments that uses parallel processing and I/O on computing clusters. Currently works with multiple imaging systems including ACS, Suprime-Cam, Megaprime, CFHT-12K, WIRCAM, WFCAM, and ULBCAM data. Was used to produce images for the COSMOS project which is the baseline comparison for the current generation of pipelines.

Hardware Project and Instrumentation Development

Detectors

Low-cost IR arrays	Working with JPL microdevices lab and USC to develop low-cost IR arrays. Developing technology to directly grow III-V materials on wafers with existing CMOS readout electronics without damaging the circuitry.

Space

CSA CASTOR	US lead of the science team developing a 1m wide-field UV imaging and spectroscopy satellite in partnership with Canada and India. Responsible for TRL development of UV sensitive CMOS arrays and development of a US focal plane and software contribution as part of a NASA MOO proposal.
NASA SPHEREx	Senior Co-I on the explorer mission proposal to develop 20cm all sky spectroscopic survey for both the SMEX and MIDEX concepts. Lead the development of the mission cosmology simulator to guide the instrument design. Science lead of the science center developing the ground software.
NASA WFIRST	Lead of photo-z for the cosmology science definition team, developing requirements for the WFIRST mission.
ESA Euclid (DUNE)	Member of the project inception science team. Developed the science case, camera specifications, and photometric redshift requirements for the original mission concept that became DUNE. Worked closely with the JPL team on the detector selection and electronics characterization. Liaison between the hardware teams at JPL and LAM, the ground software teams, and the calibration team. Member of the instrument calibration team.

Ground Based

GISMO	On the early science team which commissioned the instrument at the IRAM telescope. Worked to upgrade the instrument. Actively working with the team to deploy the instrument on JCTM, LMT, or the Greenland Telescope.
CCAT	Lead of the extragalactic science working group developing design specifications and proposals for the galaxy evolution and cosmology science cases. Worked closely with the instrument hardware teams to develop optimal designs for the cameras.

Ground Based (Continuted)

JCMT SCUBA-2	Shared risk observer, worked on instrument and software debugging with early data.
Rockwell ULBCAM	Member of the commissioning team for the Rockwell JWST detector test system (ULBCAM) on the UH2.2m telescope. This was one of the first HAWAII-2RG mosaic focal plane deployed for astronomical use.
Keck DEIMOS	Shared risk observer, worked on instrument and software debugging with early data.
UKIRT WFCAM	Shared risk observer, worked on early pipeline and instrument debugging.
WIRCAM CFHT	Shared risk observer, worked on early pipeline and mitigating warm electronic cross talk.
MEGAPRIME CFHT	Shared risk observer, developed early data pipelines and calibration procedures, worked on debugging final pipeline.
Subaru Suprime-Cam	Shared risk observer, developed best observing practices, calibration methods and full data reduction pipeline. Developed scattered light mitigation procedure and took observations to verify it.
Subaru CISCO	Shared risk observer, worked on instrument and software debugging with early data.

Meetings Organized (16)

Sept 2019	Euclid NISP interfaces meeting, Paris, France
Feb 2019	BUFFALO team meeting, Las Vegas, NV
Nov 2018	Euclid MER, PHZ, NIR meeting to develop color term calibration plan.
June 2018	Cosmos Team Meeting, Copenhagen, Denmark
Oct 2017	Euclid NISP interfaces meeting, Heidelberg, Germany
June 2017	Cosmos Team Meeting, Kyoto, Japan
Dec 2016	Euclid Weak lensing and Photometric redshift working group joint meeting.
June 2016	Cosmos Team Meeting, Baltimore, MD
June 2015	Cosmos Team Meeting, Helsinki, Finland
Oct 2014	Weak lensing and photometric redshifts for Euclid, Pasadena, CA
May 2014	Cosmos Team Meeting, Zagreb Croatia
June 2013	“10 years of COSMOS”, Kyoto, Japan
March 2013	“Infrared and Sub-millimeter Probes of Gas in Galaxies: From the Milky Way to the Distant Universe”, Pasadena, CA
June 2012	“African COSMOS”, science team meeting and exhibit at the Smithsonian national museum of African art, Washington, DC
Jan 2012	Synergies with the next generation of Sub-mm instruments, Herschel, SCUBA-2, AzTEC, ALMA, and LMT, Honolulu, HI
Dec 2011	Spectroscopic surveys with FMOS and DEIMOS in HST fields
June 2011	COSMOS team Meeting, Zurich, CH

Teaching and Mentoring

35 Students and Postdocs Supervised
4 Past Students/Postdocs with Faculty Positions
4 Past Students/Postdocs in Staff positions
3 Past Students won Prize Fellowships
3 Past Undergraduate students in PhD programs (2 Harvard, 1 MPIA)

2019-2020	Co-supervising University of Riverside Ph.D. student A. Pagul, working on the BUFFALO survey.
2018-2020	Supervising University of Copenhagen Ph.D. student J. Weaver, working on galaxy evolution surveys with Spitzer and Subaru.
2016-2020	Thesis committee member for MPIA graduate student I. Barasic.
2019	Supervising Swinburn University undergraduate student T. Venville on using machine learning to develop variability priors for low cadence data.
2019	Supervising Caltech undergraduate student M. Tjandrasuwita developing high-dimensional deconvolutional methods using neural gasses and gaussian mixture models.
2019	Supervising Caltech undergraduate student K. Duran using gaussian processes to combine photometric and spectroscopic measurements of galaxies.
2019	Supervising Caltech undergraduate student D. Yatunin developing using deep neural networks to predict high-resolution spectral properties from photometric data.
2017-2019	Supervised IPAC postdoc I. Davidzon, working on galaxy evolution and photometric redshift studies for Euclid. Currently fellow at the Cosmic Dawn Center.
2016-2019	Co-supervised JPL/UCR postdoc M. Simet, working on weak lensing studies of galaxy clusters for cosmology and machine learning. Currently enrolled in Insight data fellowship.
2016-2019	Co-Supervised JPL/UCR postdoc A. Izard, working on large volume cosmological simulations for future dark energy experiments. Currently postdoctoral fellow at University of Portsmouth.
2018	Co-Supervised UCR graduate student B. Scott, developing forecasting methods for future cosmology surveys. Currently in graduate school at UCR.

Teaching and Mentoring (Continued)

2015-2018	Supervised Caltech postdoc S. Hemmati working on mission simulations for WFIRST. Won NPP fellow at JPL and is now staff member at IPAC.
2015-2018	Supervised Caltech postdoc A. Faisst working on the properties of high-redshift galaxies. Currently staff member at IPAC.
2016-2017	Mentored UC Riverside undergraduate S. Annamraju for her first research experience.
2016-2017	Mentored UC Riverside undergraduate S. Santhiveeran for her first research experience.
2014-2017	Supervising Caltech postdoc D. Masters working on how to define photometric redshift samples for the Euclid mission. Became an NPP fellow at JPL and is now a staff member at IPAC.
2013-2017	Supervising Harvard Graduate Josh Speagle on quantifying the main sequence of star formation and improving photometric redshift methods. Currently completing his degree at Harvard.
2013-2016	Supervising Caltech postdoc C. Steinhardt working on the "Spitzer Wide Area Survey with Hyper-Suprime-Cam: SPLASH". Currently faculty member at University of Copenhagen and the DAWN center.
2015-2016	Supervised Zagreb undergraduate student I. Barasic. Currently obtaining Ph.D. at MPIA.
2015-2016	Supervising postdoc N. Stickley, working on SPHEREx mission simulations. Currently a staff scientist at IPAC.
2014	Supervised MIT Undergraduate Adam Kallnich on using self-organizing maps to define photometric redshift calibration samples. Currently completing his degree.
2014	Supervised MIT Undergraduate Allan Sadun on using median galaxy Spectral Energy Distributions to define star formation histories of high-redshift galaxies. Currently completing his degree.
2013	Supervised Caltech undergraduate SURF D. Wang. Worked on improved methods for multi-wavelength source detection with Hyper-Suprime-Cam.
2013	Supervised Caltech undergraduate SURF Student S. Dolan. Developed highly parallezed model fitting code for photometric redshifts.

Teaching and Mentoring (Continued)

2009-2013	Supervising IPAC student fellow D. Masters (PhD. student at UC Riverside, supervisor Dr. B. Mobasher). Probing the faint end of the Quasar luminosity function at 3<z<6 and analyzing high S/N Keck DEIMOS spectra to measure galaxy properties. Became an NPP fellow and is now a staff member at IPAC.
2010-2013	Supervising Postdoc D. Hanish with H. Teplitz at IPAC. Working the analysis of archival Spitzer 70 and 160μm data to study the evolution of the Quasar population.
2009-2012	Mentoring 3rd year PhD student S. Manohar at Caltech (supervisor Dr. N.Z. Scoville). Measuring the mm properties of 160μm selected z~2 ULIRGS in COSMOS.
2008-2012	Mentoring 4th year PhD student D. Newman at Caltech (supervisor Dr. R.S. Ellis). Developing photometric redshifts for weak and strong lensing applications. Currently faculty member at Carnegie observatories.
2009-2011	Supervised Postdoc Y. Kakazu at Caltech. Working on analysis of metallicity and physical properties of z>4 galaxies. Currently staff member at Subaru Telescope.
2008-2011	Supervising Postdoc H. Fu with Dr. L. Yan and Dr. N.Z. Scoville at Caltech. Working on the analysis of IRS spectra in the COSMOS field and AGN/Galaxy co-evolution. Currently Faculty member at the university of Iowa.
2010	Supervised Caltech undergraduate SURF Student J. Scott. Worked on measuring the evolution of light profiles for passive galaxies at z<2.
2009	Mentored Caltech undergraduate student Gongjie Li. Compared starburst 99 models to deep Keck DEIMOS spectra of 4<z<6 galaxies to determine the age and dust extinction in galaxies. Currently a Ph.D. student at Harvard.
2005-2009	Mentored PhD student J. Kartaltepe at the University of Hawaii (supervisor Dr. D.B. Sanders). Studies of galaxy mergers and obscured star formation. Currently faculty member at Rochester Institute for Technology.
2006	Mentored Caltech undergraduate student R. Cook, “Testing Evolutionary Population Synthesis Models using Average Galaxy Templates in the Wavelength Range 0.09 – 2.5μm”.

Teaching and Mentoring (Continued)

2004	Mentor for REU summer program, Student: J. Blazek, "Evolution of the Two-point Correlation Function in Narrow Redshift Bins at z<2" research presented at 2005 summer AAS. Currently SNSF Fellow at Lausanne.
2000	Lecturer for Astronomy 101, "Introduction to Astronomy", summer session at the University of Hawaii
1998-1999	Lab instructor for Physics 101 and Astronomy 101 at the University of British Columbia

Invited Talks (66)

January 2019	von Karman Lecture on the scientific impact of Spitzer, Pasadena, CA
January 2019	AAS Special session on the end of the Spitzer Mission, Honolulu, HI
October 2019	MPIA, Heidelberg, Germany
October 2019	UC Santa Cruz Colloquia, Santa Cruz, CA
August 2019	From AGN to Starbursts, Guiyang, China
June 2019	WFIRST deep fields, AAS, St. Louis, MO
April 2019	LAM Marseille Colloquia, Marseille France
April 2019	Rochester Institute of Technology Colloquia, Rochester, NY
March 2019	Lawrence Berkeley Lab Cosmology Talk, Berkeley, CA
Jan 2019	The Growth of Galaxies IV, Sesto, Italy
Dec 2018	Subaru-WFIRST synergy workshop II, Tokyo, JP
Dec 2018	AstroData 2020s workshop, Pasadena, CA
Oct 2018	LMT planning workshop, Amherst, MA
Oct 2018	CANDELS team meeting, Amherst, MA
Sept 2018	What color is your galaxy workshop, Leiden, NL
Aug 2018	WFIRST/LSST Deep Field Planning workshop, Princeton, NJ
June 2018	Euclid Team Meeting Plenary Presentation, Bonn, Germany
Jan 2018	Growth of galaxies in the early universe 4 conference, Sesto, Italy
Dec 2017	Spitzer oversight committee meeting, Pasadena, CA
May 2017	Photo-z for cosmology workshop, Sendai, Japan
March 2017	WFIRST FSWIG meeting, Pasadena, CA
January 2017	SUNY Stonybrook, Stonybrook NY

Invited Talks (Continued)

January 2018	CCA Flatiron Institute, New York, NY
Dec 2016	Euclid Weak Lensing Workshop, Pasadena, CA
Oct 2016	Lorentz Center Workshop on Dust in High-z Galaxies, Leiden, NL
Sept 2016	WFIRST pipeline development meeting, Princeton, NJ
Sept 2016	Euclid Calibration Meeting, Madrid Spain
July 2016	University of Sussex Colloquia, Brighton, UK
March 2016	University of Illinois Champaign Urbana Astronomy Colloquia
March 2016	National Radio Astronomy Observatory Colloquia, Charlottesville, VA
Jan 2016	Sesto Winter Conference on High-Redshift Galaxies, Sesto, IT
Sept 2015	1st annual Zwicky Symposium, Bruanwald, Switzerland
Aug 2015	JPL-7X annual report on Astrophysics, Pasadena, CA
June 2015	Innovative Cosmological Simulations with Machine Learning and Statistics in the era of LSST, Pittsburg, PA
April 2015	IPMU, Tokyo, Japan
Dec 2014	Colloquia, University of Bonn, Bonn, Germany
Nov 2014	Frontiers Field Meeting, Yale, CN
June 2014	Cosmos meeting, Zagreb Croatia
Sept 2013	CCAT preliminary design review, Boulder, CO
Sept 2013	10 year celebration of the Spitzer launch, Pasadena, CA
Sept 2013	Photometric Redshifts for Cosmology, Taipei, Taiwan
July 2013	ASIAA Taiwan Colloquia
June 2013	Aspen workshop on weak lensing cosmology, Aspen, CO
May 2013	High-redshift galaxies with Hyper-Suprime-Cam, Kyoto, Japan

Invited Talks (Continued)

March 2013	University of Minnesota Colloquia
March 2012	University of Maryland Colloquia
February 2012	Growing Black Holes in COSMOS
November 2011	UCSB Colloquia
October 2011	Galaxy Mergers in an Evolving Universe, Hualien, Taiwan
June 2011	COSMOS Team meeting, Zurich, Switzerland
May 2011	Yale Astronomy Colloquia
April 2011	HEAD Talk at Harvard/CFA
October 2010	Galaxy Evolution: Infrared to Millimeter Wavelength Perspective, Guilin, China
May 2010	Greater IPAC Science Symposium, Pasadena, CA, USA
March 2010	NRAO colloquia in Soccoro, NM, USA
November 2009	The Gaseous Evolutions of Galaxies, Ringberg, Germany
October 2009	Colloquia at UC Riverside, Riverside, CA, USA
October 2009	Reionization to Exoplanets: Spitzer's Growing Legacy, Pasadena, CA, USA
October 2009	IPAC Colloquia, Pasadena, CA, USA
September 2009	Keck Infrared Instrumentation Meeting, Pasadena, CA, US
Feb 2009	Colloquia at Princeton, NJ, USA
Nov 2008	Colloquia at UC Davis, Davis, CA, USA
Nov 2008	Colloquia at Lawrence Berkley National Lab, Berkley, CA, USA
Sept 2008	Colloquia at University of Hawaii, Institute for Astronomy, Honolulu, HI, USA
August 2007	Legacy of Multi-wavelength surveys, Xining, China

Invited Talks (Continued)

April 2007	Colloquia at the UC, San Diego, San Diego, CA, USA
Feb 2007	Colloquia at the NASA Jet Propulsion Laboratory, Pasadena, CA, USA

Contributed Talks (51)

Oct 2018	Euclid calibration meeting, Heidelberg, Germany
May 2018	COSMOS team meeting, NY, NY
May 2018	Euclid Photo-z workshop, Geneva, CH
Feb 2018	BUFFALO Team meeting, Las Vegas, NV
Nov 2018	Euclid Photo-z workshop, Barcelona, Spain
June 2018	Cosmos team meeting, Copenhagen, Denmark
June 2018	Dawn Center workshop, Copenhagen, Denmark
June 2018	Euclid garage days workshop, Bonn, Germany
June 2018	Euclid photo-z workshop, Bonn, Germany
June 2018	Euclid observation planning workshop, Bonn, Germany
May 2018	Euclid Photo-z workshop, Geneva, Switzerland
April 2018	CANDELS team meeting, Riverside, CA
Jan 2018	SPHEREx community workshop, Boston, MA
Nov 2017	LSST DESC meeting on photo-z, Berkley, CA
Oct 2017	DAWN Center kickoff meeting, Copenhagen, Denmark
June 2017	Cosmos team meeting, Kyoto, Japan
June 2017	Euclid Team meeting, London, UK
May 2017	Greater IPAC Science Symposium, Pasadena, CA
April 2017	Euclid photo-z team meeting, Geneva, Switzerland

Contributed Talks (Continued)

July 2016	LSST-Euclid workshop on data processing
May 2016	Euclid Photo-z workshop
Oct 2015	Caltech Special Colloquia on WFIRST science and calibration
Aug 2015	A Celebration of Nick Scoville, Honolulu, HI
July 2015	Euclid Photo-z team meeting, Barcelona, Spain
June 2015	COSMOS Team Meeting, Helsinki, Finland
May 2015	Euclid team meeting, Lausanne, Switzerland
Feb 2015	LSST Cosmology Meeting, Stanford, CA
Dec 2014	Euclid Weak lensing workshop, Paris, FR
Aug 2014	Precision photometric redshifts for cosmology, COSPAR 2014, Moscow, RU
June 2014	Calibrating Euclid with external Spectroscopy, Euclid Photo-z meeting, Geneva, CH
May 2014	External Spectroscopy for Euclid, Euclid Science Meeting, Marseille, France
Nov 2013	Euclid Photo-z meeting, Geneva, CH
May 2013	Greater IPAC science symposia, Pasadena, CA
Mar 2013	“Infrared and Submillimeter Probes of Gas in Galaxies: From the Milky Way to the Distant Universe”, Pasadena, CA
Jan 2012	“First Release of the Spitzer Source List”, AAS, Austin, TX
Dec 2011	“Deep spectroscopy of the high-redshift universe”, Honolulu, HI
Jan 2011	“Extreme Star Formation and AGN Activity in a Massive Protocluster at z=5.3”, AAS, Seattle, USA
July 2010	“Photometric Redshifts for Lensing: Lessons from the COSMOS Survey”, DUEL Meeting: 10 years of Cosmic Shear, Edinburg, Scotland

Contributed Talks (Continued)

June 2010	"A large Proto-Cluster at z=5.3", COSMOS team meeting, Honolulu, USA
Sept 2009	"Spectroscopy of z>7 galaxies", Keck Science Meeting, Pasadena, USA
July 2009	"The mass and luminosity function of Ly-alpha emitters at z=5.7", The Ly-Alpha Universe, Paris, France
June 2009	"The High-Redshift COSMOS", COSMOS team meeting, Ehime, Japan
June 2008	"High mass and High star formation rates at High redshifts", Cosmos Team Meeting", Paris, France
Dec 2007	"New views of galaxy formation with COSMOS-21", Panoramic Views of Galaxy Formation and Evolution, Hayama, Japan
June 2007	"A detailed study of the 4.5<z<6 universe", COSMOS team meeting, New York, New York
May 2007	"Evolution of the Morphology Density and Star Formation Density Relation Between 0 < z < 1.2", American Astronomical Society Meeting 207, Honolulu, HI
Sept 2006	"A possible Mass-Density relation at z=5.7", COSMOS team meeting, Munich, Germany
April 2006	"Evolution of the Morphology Density Relation Between 0 < z < 1.2", Galaxies and Structures through Cosmic Times, Venice, Italy
Jan 2006	"Evolution of the Morphology Density Relation Between 0 < z < 1.2", American Astronomical Society Meeting 207, Washington DC
May 2005	"Evolution of the Morphology Density Relation Between 0 < z < 1.2", COSMOS team meeting, Kyoto, Japan
Jan 2005	"Evolution of the Galaxy Luminosity Function Between 0.5<z<5", American Astronomical Society Meeting 205, San Diego, CA
Oct 2003	"Constraining the Star Formation History with Photometric Redshifts", Multiwavelength mapping of galaxy formation and evolution, Venice Italy

Press Releases and Media

Oct 2018	Press release on high-redshift galaxy cluster
Sept 2018	Press release on the Spitzer/Hubble BUFFALO survey
June 2017	VLA-COSMOS Survey press release
May 2017	Hubble/Spitzer Frontier Field Press release on data completion
April 2017	Press release on creation of the Cosmic DAWN center at the University of Copenhagen
Nov 2016	Featured in the Guardian weekly science podcast.
Oct 2016	Museum alliance educators conference on the Frontier Fields
June 2015	Press release on measuring the dust and gas content of z~5 galaxies.
Sept 2014	Press release on finding large number of massive galaxies at z~5-6 with Spitzer
March 2014	Press release on seeing earliest galaxies with Spitzer and HST for the frontiers fields.
Aug 2013	Press release on the evolution of passive galaxies with ETH Zurich and ESO. Covered by Sky and Telescope.
Jan 2011	Press conference at AAS on the discovery of a galaxy proto-cluster at z=5.3. Covered by BBC, Discovery Channel and many other media outlets.
Nov 2010	Working with NHK on documentary “Cosmic Fronts” about HST surveys including COSMOS.
Oct 2010	Working with BBC on a documentary entitled: “Wonders of the Universe”.
Oct 2008	Worked with Artist Karel Nel on interpreting galaxy evolution studies. This work was featured in Nature Vol 455, Oct, 2, 2008, and the art will be shown at the Smithsonian in during the summer of 2012.
July 2008	Press release: “Rare 'Star-making Machine' Found in Distant Universe”, featured in Scientific American, Discovery Channel, the BBC, and National Geographic. Has a Wikipedia page.

Press Releases and Media (Continued)

May 2007	Press release: "Caltech and Berkeley Astronomers Identify New Class of Cosmic Explosions", featured in Space.com.
Aug 2007	Press release: "Abell 520: Dark Matter Mystery Deepens in Cosmic Train Wreck", featured in Science Now and Space.com. Has a Wikipedia page.
Jan 2007	Press release: "New 3-D Map of Dark Matter Reveals Cosmic Scaffolding". Featured in over 15 news outlets including the Economist, the BBC, CNN. Discussed under Dark Matter in Wikipedia.
Dec 2003	News release on ULBCam commissioning: http://www.ifa.hawaii.edu/research/ULBCam.shtml
May 2003	Interview with CBC Prince George on Astronomy in Hawaii