Gregory H. Rudnick, *University of Kansas*

ROLE IN THE PROJECT

Gregory Rudnick is an expert in ionized gas properties of galaxies, dust emission, molecular gas, distant clusters, and the characterization of galaxy environments. His knowledge spans many of the areas of the proposal and he will therefore be able to effectively coordinate the various research activities. He will personally lead investigations into: **1)** the spatial distribution the ionized gas in intermediate redshift filament, group, and cluster galaxies; **2)** the environmental dependence of obscured star formation in the same intermediate redshift galaxies; **3)** and the molecular gas contents of the most distant cluster galaxies. He is involved in most of the research projects proposed by the team and will therefore be an effective nexus of the research activities. He will be one of the lead authors on the synthesis papers that the team lists as its primary goal.

On the administrative side, he will organize and run all the team meetings, maintain the e-mail archive, organize and run regular (∼monthly) team telecons, coordinate the writing of team proposals, and maintain the team wiki and public ISSI web page.

FELLOWSHIPS & APPOINTMENTS

- **current position:** Associate Professor of Astronomy, University of Kansas (2013 - present)
- Recipient of an "Alexander von Humboldt Fellowship" to conduct research at the Max-Planck-Institute for Astronomy in Heidelberg, Germany, for the summers of 2012-2014
- Assistant Professor of Astronomy, University of Kansas (2008 - 2013)

PROFESSIONAL PREPARATION

University of Illinois	Physics	B.S.	1996
University of Arizona	Astronomy	Ph.D.	2001
Max-Planck-Institute for Astrophysics	Astronomy	Postdoc	2001 - 2004
National Optical Astronomy Observatory	Astronomy	Leo Goldberg Fellow	2004 - 2008

RESEARCH EXPERTISE AND INTERESTS

Optical and infrared observational astronomy; The effect of environment on galaxies; The growth of stellar mass in galaxies; Galaxy clusters

HONORS

One of four recipients of 2016 University Scholarly Achievement Award for excellent scholarly achievement at the University of Kansas

RELATED PUBLICATIONS

Determining the Halo Mass Scale where Galaxies Lose Their Gas **Rudnick, G.**, Jablonka, P, Moustakas, J., Aragón-Salamanca, A., Zaritsky, D., Jaffé, Y. L., De Lucia, G., Desai, V., Halliday, C., Just, D., Milvang-Jensen, B., Poggianti, B., submitted to the Astrophysical Journal

Substantial Molecular Gas Reservoirs from CO(1-0) Observations and Extremely Low Star Formation Efficencies in $z = 1.62$ Cluster Galaxies. **Rudnick, G.**, Hodge, J., Walter, F., Momcheva, I., Tran, K.-V., Papovich, C., da Cunha, E., Decarlo, R., Saintonge, A., Willmer, C., Lotz, J., Lentati, L., submitted to the Astrophysical Journal

Disc colours in field and cluster spiral galaxies at 0.5 ?z ? 0.8 Cantale, N., Jablonka, P., Courbin, F., **Rudnick, G.**, Zaritsky, D., Meylan, G., Desai, V., De Lucia, G., Aragón-Salamanca, A., Poggianti, B. M., Finn, R., and Simard, L., 2016, A&A, 589, A82

A Tale of Dwarfs and Giants: Using a $z = 1.62$ Cluster to Understand How the Red Sequence Grew Over the Last 9.5 Billion years, **Rudnick, G.**, Tran, K.-V., Papovich, C., Momcheva, I., and Willmer, C., 2012, ApJ, 755, article id. 14

Dust Obscured Star Formation in Intermediate Redshift Clusters, Finn, R., , Desai, V., **Rudnick, G.**, Poggianti, B., Bell, E., and 6 co-authors, 2010, ApJ, 720, 87

A Spitzer-selected Galaxy Cluster at $z = 1.62$, Papovich, C., Momcheva, I., Willmer, C. N. A., Finkelstein, K. D., Finkelstein, S. L., Tran, K.-V., Brodwin, M., Dunlop, J. S., Farrah, D., Khan, S. A., Lotz, J., McCarthy, P., McLure, R. J., Rieke, M., **Rudnick, G.**, Sivanandam, S., Pacaud, F., & Pierre, M. 2010, ApJ, 716, 1503-1513

The Rest-frame Optical Luminosity Function of Cluster Galaxies at $z < 0.8$ and the Assembly of the Cluster Red Sequence, **Rudnick, G.**, von der Linden, A., Pelló, R., Aragón-Salamanca, A., and 11 co-authors, 2009, ApJ, 700, 1559

Spitzer Mid- to Far-Infrared Flux Densities of Distant Galaxies, Papovich, C., **Rudnick, G.**, Le Floc'h, E., van Dokkum, P. G., and 7 coauthors, 2007, ApJ, 668 45

SYNERGISTIC ACTIVITIES AND COMMITTEES

- Member of Scientific Organizing Committee for "Early stages of Galaxy Cluster Formation: Mergers, Protoclusters, and Star Formation in Overdense Environments ", conference on 17-21, July 2017, in Garching, Germany
- Member of Scientific Organizing Committee and author of chapter in final report for Kavli foundation sponsored workshop: "Maximizing Science in the Era of LSST: A Community-based Study of Needed US OIR Capabilities", workshop 2-6, May 2016, in Tucson, USA
- Member of Scientific Organizing Committee for "In the footsteps of Galaxies", conference on 7-11 September, 2015, in Soverato, Italy
- Director of Graduate Studies, Dept. of Physics and Astronomy, KU, Fall 2013 - Present
- Member, BigBOSS community science working group of the National Optical Astronomy Observatory, Jan. 2013 - August 2013
- Member of Scientific Organizing Committee for "Highly Multiplexed Spectroscopy with BigBOSS on the Mayall Telescope: An NOAO Community Workshop" conference on 13-14 September, 2011, in Tucson
- Member of National Optical Astronomy Observatory time allocation proposal review committee, May 2008, November 2009, May 2010, November 2010, November 2011
- Member of NASA time allocation proposal review committee, September 2009, October 2013, April 2014
- Member of Spitzer Space Telescope proposal review committee, April 2007, March 2009, December 2012

Curriculum Vitae of Françoise COMBES

Prof at College de France (Galaxies & Cosmology)
Member of Academy of Sciences
Observatoire de Paris (LERMA)
61 Av. De l'Observatoire, F-75014, Paris, FRANCE
Tel : 33-1-4051-2077, FAX : 33-1-4051-2002
E-mail: francoise.combes@obspm.fr
Web: http://aramis.obspm.fr/~combes

Studies:

1980: PhD Thesis, Univ. Paris VII: " Dynamics and structure of galaxies "
1975: Agregation of Physics (rank 2nd)
1974-5: Thesis of 3rd cycle, (Paris VII): Conditions of nucleosynthesis in a symmetric universe of matter-antimatter
1971-75: Ecole Normale Supérieure (Rue d'Ulm), PARIS

Expertise:

- Formation and evolution of galaxies
- Dynamics of galaxies: simulations of spirals, bars, interactions
- Interstellar medium of galaxies, observations of new molecules
- High redshift galaxies, cosmic star formation history
- Molecular absorption lines in front of quasars
- Dark matter in the Universe -- model of dark baryonic matter, and cold molecular gas

Professional Experience:

* 2014-: Professor at College de France: Chair Galaxies & Cosmology
* 2007-2014: Astronomer (Classe Exceptionnelle) at Paris Observatory (CE2 en 2011)
* 1989-2006: Astronomer (2nd, then 1cl) at Paris Observatory
* 1985-1989: Staff-director of the Physics Laboratory in Ecole Normale Supérieure (Ulm), Paris
* 1983-1985: Part-time lecturer in Paris 6 (C4 and DEA)
* 1975-1985: Assistant then Maître-Assistant in Ecole Normale Supérieure, Paris

Committees and Functions:

* 2016-: Chair of Section Universe Sciences of Académie des Sciences
* 2009-2016: President of COFUSI
* 2003-2018: Scientific Editor of A&A (Astronomy & Astrophysics main European Journal)
* 2002-2004: President of SF2A (French National Astrophysical Society)
* 2007-2008: Chair of PanelD Astronet Roadmap
* 2012-2015: President Division J (Galaxies & Cosmology) of IAU
* 2009-2016: Member Committee ERC-Astrophysics (PE9)
* 2010-2012: Chair of Committee ANR-Astrophysics
* 2011-2014: Chair of the ALMA Program Committee * 2012-: Chair of ESO-OPC

Publications: ~ **1000** (**485** in refereed journals), >**20 800** citations (hindex=72) from NASA-ADS

Tremblay, G.R., Oonk, J.B.R., Combes, et al.: 2016, Cold, clumpy accretion onto an active supermassive black hole, Nature 534, 218,
Garcia-Burillo, S., Combes, F., Ramos Almeida, C. et al.:2016, ALMA resolves the torus of NGC 1068: continuum and molecular line emission, ApJL 823, L12
El-Zant, A., Freundlich, J., Combes, F.: 2016, From cusps to cores: a stochastic model, MNRAS 461, 1745
Salome, Q., Salome, P., Combes, F., Hamer, S., Heywood , I.: 2016, Star formation efficiency along the radio jet in Centaurus A, A and A 586, A45
Scharwaechter, J., Combes, F., Salomé, P., Sun, M., Krips, M.: 2016, The over-massive black hole in NGC 1277: New constraints from molecular gas kinematics, MNRAS,457, 4252

Books : * La Matière Noire, clé de l'Univers, 2015, F. Combes, Vuibert
* La Voie Lactée, 2013, F. Combes & J. Lequeux, EdP-Sciences
* Galaxies et Cosmologie (2009), F. Combes, M. Haywood, S. Collin, F. Durret, B. Guiderdoni (Ellipses)
* Mystères de la formation des galaxies (2008), F. Combes (Dunod) | Mysteries .. (2010, Springer)
* Galaxies et Cosmologie (CNRS,1991), -- Galaxies and Cosmology (Springer, 1995), avec P. Boissé, A. Mazure et A. Blanchard, ré-édition en 2002

Dennis Zaritsky
Steward Observatory, University of Arizona, Tucson, AZ, USA

Program Role: Study of low surface brightness galaxies vs. environment. Optical/IR observing expertise.

Current Positions:

2002−Present: Professor/Astronomer, Steward Observatory, Univ. of Arizona
2012−Present: Deputy Director, Steward Observatory, Univ. of Arizona
2014−Present: Associate Editor, Science Advances

Former Positions:

1999−2002: Associate Professor/Associate Astronomer, Steward Observatory, Univ. of Arizona
1997−2000 : Associate Professor/Associate Astronomer, Lick Observatory, UC Santa Cruz
1994−1997 : Assistant Professor/Assistant Astronomer, Lick Observatory, UC Santa Cruz
1991−1994 : Hubble Fellow at the Carnegie Observatories

Education: California Institute of Technology, Pasadena, CA; B.S. in Physics with Honor, 1986; University of Arizona, Tucson, AZ; Ph.D. in Astronomy, 1991

National and International Committees: NOAO DataLab Design Review Committee (2016), NASA Astrophysics Senior Review (2016), DESI Technical Document Red Team Reviewer (2015), NSF/NOAO PRP committee (2015), NSF Gemini Review (2015), Columbia University External Review Committee (2015), Hubble Fellowship Selection Panel (2015), ESO Spectroscopic Survey Review Panel (2013-2015)

Honors: Hubble Fellowship (1991), E.F. Fullam Award (1993), David and Lucile Packard Fellowship (1997), Sloan Fellowship (1998), NSF CAREER award (1998), Newton Lacy Pierce Prize (1999), Guggenheim Fellowship (2006), Galileo Circle Fellowship (2017)

Publications: Currently 216 refereed publications, a total of 17909 citation, and an H-index of 71 (Google Scholar). Examples include:

The Massive Halos of Spiral Galaxies 1994. Zaritsky, D. and White, S.D.M, ApJ, 435, 599
H II Regions and the Abundance Properties of Spiral Galaxies 1994 Zaritsky et al., Ap. J, 420, 87
A Direct Empirical Proof of the Existence of Dark Matter 2006. Clowe, D., Bradac, M., Gonzalez, A.H., Markevitch, M., Randall, S., Jones, C., and Zaritsky, D. Ap. J. Letters 648, 108
A Census of Baryons in Galaxy Clusters and Group, 2007, Gonzalez et al., ApJ, 666, 147
The Star Formation History of the Large Magellanic Cloud 2009. Harris, J. and Zaritsky, D., AJ, 138, 1243

Dr. Yara L. Jaffé - Curriculum Vitae

Personal Details

European Southern Observatory
Alonso de Cordova 3107
Vitacura, Santiago, Chile

Office: +56 2 24633074
Mobile: +56 9 53304322
Web: `http://www.sc.eso.org/~yjaffe/`

Education

2012: PhD in Astronomy, The University of Nottingham, UK.
2007: BSC in Physics (5-year Undergraduate program), Universidad Simón Bolívar, Venezuela.

Areas of specialization

Galaxy formation and evolutio; Observational and theoretical astronomy; The growth of structure in the Universe.

Current Position

2015-Present: Postdoctoral fellow at the European Southern Observatory (Chile), with duties as support astronomer at the Very Large Telescope, Paranal Observatory.

Appointments held

2012-2015: FONDECYT Fellow, hosted by Universidad de Concepción (UdeC, Chile).
2011-2012: Postdoctoral Fellow at Osservatorio Astronomico di Padova (INAF), Italy.
2008-2009: Visiting postgraduate student at European Southern Observatory (ESO), Germany.
2007-2007: Visiting undergraduate student at Goddard Space Flight Center (NASA), U.S.A.
2006-2007: Visiting undergraduate (thesis) student at Centro de Investigaciones de Astronomia, Venezuela.

Honors and Awards

2010: Second place in the Shell "Very early career woman physicist of the year" award, London, UK.
2008: Three-year Scholarship from the Venezuelan Academy of Science.
2007: Three-year Scholarship from the School of Physics & Astronomy of The University of Nottingham.
2007: Undergaduate degree in Physics awarded ***Cum Laude*** distinction.
2007: Undergraduate thesis awarded ***honorific distinction***

Professional Service

Referee for *The Astrophysical Journal* (ApJ) in several occasions.
Reviewer in European grant reviewing committees.

Selected refereed publications (from 28 articles with 207 citations)

B. M. Poggianti, G. Fasano, A. Omizzolo, M. Gullieuszik, D. Bettoni, A. Moretti, A. Paccagnella, Y. L. Jaffé, B. Vulcani, J. Fritz, W. Couch, M. D'Onofrio, *"Jellyfish galaxy candidates at low redshift"* (2016), AJ, 151, 78.

X. Fernández, (inc. Y. L. Jaffé), et al. *"Highest Redshift Image of Neutral Hydrogen in Emission: A CHILES Detection of a Starbursting Galaxy at $z = 0.376$"* (2016) *ApJ Letters*, 824, 1.

Y. L. Jaffé, M. A. Verheijen, C. P. Haines, R. Cybuslky, M. Montero-Castano, A. Chung, B. Z. Deshev, X. Fernandez, J. van Gorkom, B. M. Poggianti, R. Smith, H. Yoon, et al. *"BUDHIES III: The fate of HI and the quenching of galaxies in evolving environments"* (2016) *MNRAS*, 461, 1202.

Y. L. Jaffé, R. Smith, G. N. Candlish, B. M. Poggianti, Y-K. Sheen, M. Verheijen, *"BUDHIES II: a phase-space view of H I gas stripping and star formation quenching in cluster galaxies"* 2015, MNRAS, 448, 1715.

Y. L. Jaffé, A. Aragon-Salamanca, B. Ziegler, H. Kuntschner, D. Zaritsky, G. Rudnick, B. M. Poggianti, C. Hoyos, C. Halliday, R. Demarco, *"Ionized gas disks in Elliptical and S0 galaxies at $z < 1$"* 2014, MNRAS, 440, 3491.

Y. L. Jaffé, B. M. Poggianti, M. Verheijen, B. Deshev, and J. van Gorkom, *"BUDHIES I: characterizing the environment in and around two clusters at $z{\sim}0.2$"* 2013, MNRAS, 431, 2111

Y. L. Jaffé, B. M. Poggianti, M. Verheijen, B. Deshev, and J. van Gorkom, *"Gas reservoirs and star formation in a forming galaxy cluster at $z \sim 0.2$"* 2012, ApJL, 756, 28.

Y. L. Jaffé, A. Aragón-Salamanca, G. De Lucia, P. Jablonka, G. Rudnick, R. Saglia and D. Zaritsky, *"The colour-magnitude relation of Elliptical and Lenticular galaxies in the ESO Distant Cluster Survey"*, 2011a, MNRAS, 410, 280.

Dara J. Norman

PERSONAL INFORMATION

Tel: 520-318-8361
E-mail: dnorman@noao.edu
Web Page: www.noao.edu/∼dara

Address: National Optical Astronomy Obs.
950 N. Cherry Ave
Tucson, AZ

RESEARCH INTERESTS

Observational constraints on the formation, evolution, distribution, and environments of Active Galactic Nuclei (AGN) and their role in galaxy evolution. I will focus on galaxy properties in a variety of environments, particularly clusters and filaments.

EDUCATION

Ph.D, M.S., Astronomy
University of Washington, 1999, 1994
Dissertation:Ang. Correlations of Moderate Redshift Quasars & Foreground Galaxies
Co-Advisors: Drs. Craig Hogan (UW) & Chris Impey (UA Steward Obs.)
S.B., Earth, Atmospheric and Planetary Science
Mass. Inst. of Tech., 1989

PROFESSIONAL EMPLOYMENT

Deputy Assoc Dir. for the NOAO Community Sci. & Data Cntr	2016 - current
NOAO Associate Scientist & AURA/NOAO Diversity co-Advocate	2012 - current
NOAO Assistant Scientist & AURA/NOAO Diversity co-Advocate	2009 - 12

RECENT EXTERNAL SERVICE

External Reviewer for Kepler K2 GO Cycle 5 proposals	2017
External Reviewer for Sloan Foundation	2015
Hubble Fellowship Review Panel	2015

AWARDS &HONORS

Howard University ADVANCE-IT Faculty Fellow	2015
AURA Team Award as part of the Dark Energy Camera Team	2013
University of Washington Distinguished Alumni Timeless Award	2012
Nat. Sci. Foundation Astronomy & Astroph. Postdoctoral Fellowship	2001 - 04

SELECTED PUBLICATIONS

Martini, P., Miller, E. D., Brodwin, M., Stanford, S. A., Gonzalez, A.H., Bautz, M., Hickox, R. C., Stern, D., Eisenhardt, P. R., Galametz, A., **Norman, D.**, Jannuzi, B. T., Dey, A., Murray, S., Jones, C., Brown, M. J. I. 2013 'The Cluster and Field Galaxy Active Galactic Nucleus Fraction at z = 1-1.5: Evidence for a Reversal of the Local Anticorrelation between Environment and AGN Fraction', ApJ 768, p14.

Norman, D.J., DePropris, R. and Ross, N. 2009 'The Two-Point Correlation of 2QZ Quasars and 2SLAQ LRGs: From a Quasar Fueling Perspective', ApJ, 695, p1327.

Wittman, D., DellAntonio, I. P., Hughes, J. P., Margoniner, V. E., Tyson, J. A., Cohen, J. G., **Norman, D.** , 2006, 'First Results on Shear-selected Clusters from the Deep Lens Survey: Optical Imaging, Spectroscopy, and X-Ray Follow-up', ApJ, 643, p128.

Norman, D.J. and Impey, C.D., 2001, 'Quasar-Galaxy Correlations: A detection of Magnification Bias', AJ, 121, p2392.

DESAI, Vandana
Caltech/IPAC

Role in the Project:
Will focus on the characterizing the galaxy environment within filaments, as well as infrared properties of galaxies within the filaments.

Employment:
Research Scientist at Caltech/IPAC (Oct 2007—Present)
Postdoctoral Scholar, Caltech (Oct 2004—Oct 2007)

Education:
Ph. D. in Astronomy, University of Washington (2004)
B. S. in Astronomy with Honors, Caltech (1997)

Selected Publications:

The Evolution of the Faint End of the UV Luminosity Function during the Peak Epoch of Star Formation ($1 < z < 3$), Alavi et al. 2016, ApJ 832, 56.

Probing the Interstellar Medium of z∼1 ULIRGs through Interferometric Observations of CO and Spitzer Mid-IR Spectroscopy, Pope et al. 2013, ApJ, 772, 92.

CO J = 2-1 Line Emission in Cluster Galaxies at $z \sim 1$: Fueling Star Formation in Dense Environments, Wagg et al. 2012, ApJ, 752, 91.

Resolving the Galaxies within a Giant Lyα Nebula: Witnessing the Formation of a Galaxy Group?, Prescott et al. 2012, ApJ 752, 86.

The Spectral Energy Distributions and Infrared Luminosities of $z \approx 2$ Dust-obscured Galaxies from Herschel and Spitzer, Melbourne et al. 2012, AJ, 143, 125.

The Star Formation Histories of z∼2 Dust-obscured Galaxies and Submillimeter-selected Galaxies, Bussmann et al. 2012, ApJ, 744, 150.

The evolution of early-type galaxies in clusters from z∼0.8 to z∼0: the ellipticity distribution and the morphological mix, Vulcani et al. 2011, MNRAS, 413, 921.

The Dirt on Dry Mergers, Desai et al. 2011, ApJ, 730, 130.

The Morphological Content of Ten EDisCS Clusters at $0.5 < z < 0.8$, Desai et al. 2007, ApJ, 660, 1151.

The Cluster Galaxy Circular Velocity Function, Desai et al. 2004, MNRAS 351, 265.

Benjamin J. Weiner *Curriculum Vitae* March 20, 2017

Address: Steward Observatory, Dept. of Astronomy, University of Arizona, 933 N. Cherry St., Tucson, AZ 85721, USA. Telephone: 520.621.4119, email: bjw@as.arizona.edu, web: http://mingus.as.arizona.edu/∼bjw

Role in the Project: Expertise on spatially resolved imaging and spectroscopy with HST and preparation for JWST proposals. Measurement of far-infrared SEDs and star formation rates. Radio and millimeter observations including ALMA. Spatially resolved kinematics.

Current Position:
Associate Astronomer and Staff Scientist, MMT Observatory, University of Arizona, 2017 – present

Previous Positions:
Associate Astronomer, Steward Observatory, University of Arizona, 2013 – present
Assistant Astronomer, Steward Observatory, University of Arizona, 2006 – 2013
Postdoctoral researcher, supervisor S. Veilleux, University of Maryland, 2004 – 2006
Postdoctoral researcher, supervisor S. Faber, University of California at Santa Cruz, 2000 – 2004
Barbara McClintock Postdoctoral Fellow, Carnegie Observatories, 1998 – 2000

Education:
Swarthmore College, Physics and English Literature, B.A. 1989
Rutgers University, Astrophysics, Ph.D. 1998

Commitee Service: Beatrice Tinsley Prize Committee, American Astronomical Society

Selected Publications:

C. Pacifici, S.A. Kassin, B.J. Weiner, et al. 2016,"The Evolution of Star Formation Histories of Quiescent Galaxies," ApJ, 832, 79

J.S. Spilker, R. Bezanson, D.P. Marrone, B.J. Weiner, K.E. Whitaker, C.C. Williams, 2016, "Low Gas Fractions Connect Compact Star-forming Galaxies to Their $z \sim 2$ Quiescent Descendants," ApJ, 832, 19

R.C. Simons, S.A. Kassin, J.R. Trump, B.J. Weiner et al. 2016, "Kinematic Downsizing at $z \sim 2$," ApJ, 830, 14

R.C. Simons, S.A. Kassin, B.J. Weiner et al. 2016, "A transition mass in the local Tully-Fisher relation," MNRAS, 452, 986

A.M. Morris, D.D. Kocevski, J.R. Trump, B.J. Weiner et al. 2015, "A WFC3 Grism Emission Line Redshift Catalog in the GOODS-South Field," AJ, 149, 178

R. Genzel et al. 2015, "Combined CO and Dust Scaling Relations of Depletion Time and Molecular Gas Fractions with Cosmic Time, Specific Star-formation Rate, and Stellar Mass," ApJ, 800, 20

T. Dolley, M.J.I. Brown, B.J. Weiner et al. 2014, "The Clustering and Halo Masses of Star-forming Galaxies at $z < 1$," ApJ, 797, 125

F. Walter et al. 2014, "A Molecular Line Scan in the Hubble Deep Field North: Constraints on the CO Luminosity Function and the Cosmic H_2 Density," ApJ, 782, 79

J.A. Newman et al. 2013, "The DEEP2 Galaxy Redshift Survey: Design, Observations, Data Reduction, and Redshifts," ApJS, 208, 5

C. Pacifici, S.A. Kassin, B.J. Weiner, S. Charlot, J.P. Gardner. 2013, "The Rise and Fall of the Star Formation Histories of Blue Galaxies at Redshifts $0.2 < z < 1.4$," ApJL, 762, L15

W. Rujopakarn, G.H. Rieke, B.J. Weiner, P. Perez-Gonzalez, M. Rex, G.L. Walth, J.S. Kartaltepe. 2013, "Mid-infrared Determination of Total Infrared Luminosity and Star Formation Rates of Local and High-redshift Galaxies," ApJ, 767, 73

L.J. Tacconi et al. 2013, "Phibss: Molecular Gas Content and Scaling Relations in $z \sim 1 - 3$ Massive, Main-sequence Star-forming Galaxies," ApJ, 768, 74

S.A. Kassin, B.J. Weiner, et al. 2012, "The Epoch of Disk Settling: $z \sim 1$ to Now," ApJ, 758, 106

K.H.R. Rubin, B.J. Weiner, et al. 2010, "The Persistence of Cool Galactic Winds in High Stellar Mass Galaxies between $z \sim 1.4$ and 1," ApJ, 719, 1503

B.J. Weiner et al. 2009, "Ubiquitous Outflows in DEEP2 Spectra of Star-Forming Galaxies at $z = 1.4$," ApJ, 692, 187

K.G. Noeske, B.J. Weiner, et al. 2007, "Star Formation in AEGIS Field Galaxies since z=1.1: The Dominance of Gradually Declining Star Formation, and the Main Sequence of Star-forming Galaxies," ApJL, 660, L43

Biographical Sketch:

Casey J. Papovich

PROFESSIONAL PREPARATION

The College of William and Mary	Physics	B.S.	1995
The Johns Hopkins University	Physics	M.A.	1997
The Johns Hopkins University	Physics	Ph.D.	2002
University of Arizona	Astronomy	Postdoc	2001 – 2005
University of Arizona	Astronomy	Spitzer Fellow	2005 – 2008

APPOINTMENTS

- Professor of Physics and Astronomy, Texas A&M University (2016 - present)
- Marsha L. and Ralpha F. Schilling Chair in Experimental Physics (2015 - present)
- Associate Professor of Physics and Astronomy, Texas A&M University (2012 - 2016)
- Assistant Professor of Physics and Astronomy, Texas A&M University (2008 - 2012)

RESEARCH EXPERTISE AND INTERESTS

Galaxy formation and evolution; cosmology and reionization; Optical, infrared, radio observational astronomy

RELATED PUBLICATIONS

Large molecular gas reservoirs in ancestors of Milky Way-mass galaxies nine billion years ago, **Papovich, C**, Labbé, I., Glazebrook, K., Quadri, R., Bekiaris, G., Dickinson, M., Finkelstein, S. L., Fisher, D., and 5 Co-authors, 2016, Nature Astron, 1, 3, DOI:10.1038/s41550-016-0003

The Spitzer-HETDEX Exploratory Large-area Survey, **Papovich, C**, Shipley, H V, Mehrtens, N, Lanham, C, Lacy, M, Ciardullo, R, Finkelstein, S L, Bassett, and 22 co-authors, 2016 ApJS, 224, 28 (30pp) DOI:10.3847/0067-0049/224/2/28

Satellite Quenching and Galactic Conformity at $0.3 < z < 2.5$, Kawinwanichakij, L, Quadri, R F, **Papovich, C**, Kacprzak, G G, Labbé, I, Spitler, L R, Straatman, M S, Tran, K-V, and 16 co-authors, 2016, ApJ, 817, 9 (19pp) DOI:10.3847/0004-637X/817/1/9

ZFOURGE/CANDELS: On the Evolution of M Galaxy Progenitors from z = 3 to 0.5*, **Papovich C**, Labbé I, Quadri R, Tilvi V, Behroozi P, Bell E, Glazebrook K, Spitler L, and 33 co-authors, 2015, ApJ 803 26 (24pp) DOI:10.1088/0004-637X/803/1/26

The Distribution of Statellites around Massive Galaxies at $1 < z < 3$ *in ZFOURGE/CANDELS: Dependence on Star Formation Activity*, Kawinwanichakij L, **Papovich C**, Quadri R, Tran K-V, Spitler L, Kacprzak G, Labbé I, Straatman C, and 18 co-authors, 2014, ApJ, 792 103 (19 pp) DOI:10.1088/0004-637X/792/2/103

SELECTED SYNERGISTIC ACTIVITIES

- Member NOAO Users Committee, 2012 – present
- Member, Giant Magellan Telescope Science Advisory Committee, 2010 – present
- Member, SOC for "Reionization: A Multiwavelength Approach", Kruger Park, South Africa, 2015
- Member, Hubble Fellowship Selection Review Panel, 2014
- Member, NOAO Telescope and Subaru Time allocation Committees, 2006–2013

Gianluca Castignani - *Curriculum Vitae*

CONTACT INFORMATION

Observatoire de Paris
LERMA
61 avenue de l'Observatoire
75014 Paris, France

E-mail: gianluca.castignani@obspm.fr
webpage: https://sites.google.com/site/gianlucacastignani/home

ROLE IN THE PROJECT

Based on my experience on AGNs and distant clusters around radio galaxies I will investigate the role of the enviroment on star formation in galaxies belonging to the filaments of Virgo using clustering analysis and targeted observations. I will also potentially contribute to the project on high-z galaxy clusters.

CURRENT POSITION

Postdoc

Observatoire de Paris, LERMA **12/2016 - present**
Laboratoire d'Etudes du Rayonnement et de la Matiére en Astrophysique et Atmosphéres
Collège de France **12/2016 - present**
- Advisor: Françoise Combes

FORMER POSITION

Centre National d'Études Spatiales (CNES) postdoctoral fellow
Laboratorie Lagrange, Observatoire de la Côte d'Azur, Nice, France **12/2014 - 11/2016**

EDUCATION

PhD in Astrophysics, SISSA, Trieste, Italy	**11/2010 - 10/2014**
MSc in Physics, University of Pisa, Italy	**07/2008 - 10/2010**
BSc in Physics, University of Pisa, Italy	**09/2005 - 07/2008**
Student in Physics, Scuola Normale Superiore, Pisa, Italy	**10/2005 - 09/2010**

WORK EXPERIENCE

Laboratorie Lagrange, Observatoire de la Côte d'Azur, Nice, France	**12/2014 - present**
Euclid consortium, Ground Segment Workpackage Clusters of Galaxies	**06/2015 - present**
Dark Energy Survey (DES), DES-Brasil consortium, LIneA node	**10/2016 - present**
altogether 1 year research period at the ***STScI*** (Baltimore, USA)	**2010 - 2014**

FELLOWSHIPS, HONORS, AND AWARDS

CNES postdoctoral fellowship	**11/2014 - 11/2016**
Ph.D. fellowship at SISSA	**11/2010 - 10/2014**
Fondazione Angelo Della Riccia Fellowship (3,500 euro) to work at the STScI	**04/2014 - 06/2014**
Fondazione Angelo Della Riccia Fellowship (1,800 euro) to work at the STScI	**03/2013 - 10/2013**
ISSNAF/INAF internship to work at the STScI	**07/2010 - 09/2010**
Scholarship at the Scuola Normale Superiore, Pisa, Italy	**10/2005 - 09/2010**
Competitor at the Italian Olympiads of Physics for high school students, after qualification	**2005**
Competitor at the Italian Olympiads of Mathematics for high school students, after qualification	**2005**

SELECTED PUBLICATIONS IN REFEREED JOURNALS

G. Castignani, E. Pian, et al. *Multifrequency variability study of the gamma-ray emitting blazar PKS 1510-089*, 2017, arXiv:1612.05281, *A&A* in press • **G. Castignani** & C. Benoist, *A new method to assign galaxy cluster membership using photometric redshifts*, 2016, *A&A*, 595, 111 • **G. Castignani** & G. De Zotti, *AGN torus emission for a homogeneous sample of bright flat spectrum radio quasars*, 2015, *A&A*, 573, 125 • **G. Castignani**, M. Chiaberge, A. Celotti, & C. Norman, *A new method to search for high redshift clusters using photometric redshifts*, 2014, *ApJ*, 792, 113 • **G. Castignani**, M. Chiaberge, A. Celotti, C. Norman, & G. De Zotti, *Cluster candidates around low power radio-galaxies at* $z \sim 1-2$ *in COSMOS*, 2014, *ApJ*, 792, 114 • **G. Castignani**, D. Guetta, E. Pian, L. Amati, S. Puccetti, and S. Dichiara, *Time delays between Fermi-LAT and GBM light curves of gamma-ray bursts*, 2014 , *A&A*, 56, 60 • **G. Castignani**, F. Haardt, A. Lapi, G. De Zotti, A. Celotti, and L. Danese, *Black hole mass estimates for a homogeneous sample of bright flat-spectrum radio quasars*, 2013, *A&A*, 560, 28

Allison G. Noble

CONTACT INFORMATION

Kavli Institute for Astrophysics
Massachusetts Institute of Technology

PROJECT ROLE

Characterizing star formation and gas content of galaxies in high-z clusters and the role of environment through infrared and submillimeter observations

CURRENT POSITION

Postdoctoral Fellow, MIT, USA 2016 – present

- Advisor: Michael McDonald

FORMER EMPLOYMENT

Postdoctoral Fellow, University of Toronto, Canada 2014 – 2016

- Advisor: Howard Yee

EDUCATION

Ph.D. McGill University - Department of Physics awarded 2014

- Thesis: *Dusty Star-Forming Galaxies within High-Redshift Galaxy Clusters*
- Advisor: Tracy Webb

B.Sc. University of Wisconsin - Madison (Graduated with Distinction) awarded 2007

- Majors: Honors in Physics and Astrophysics (Dual Major)

PROFESSIONAL SERVICE

Referee Service

- *The Astrophysical Journal; The Astrophysical Journal Letters; Monthly Notices of the Royal Astronomical Society; Letters, Astronomy & Astrophysics*

Telescope Committees

- *CFHT proposal referee; Chandra TAC*

SELECTED AWARDS

Schulich Graduate Fellowship; Molson and Hilton Hart Fellowship; Provost's Graduate Fellowship; Principal's Graduate Fellowship; McGill Recruitment Excellence Fellowship; Phi Beta Kappa; Chambliss Student Achievement Award at the AAS Meeting

SELECTED PUBLICATIONS

1. **Noble, Allison**; Webb, T. M. A.; Yee, H. K. C.; et al. (2016) *The Phase Space of $z \sim 1.2$ SpARCS Clusters: Using Herschel to probe Dust Temperature as a Function of Environment and Accretion History*. ApJ, 816, 48.
2. Webb, T. M. A.; **Noble, Allison**; DeGroot, A.; et al. (2015) *An Extreme Starburst in the Core of a Rich Galaxy Cluster at $z = 1.7$*. ApJ, 809, 173.
3. **Noble, Allison**; Geach, J. E.; van Engelen, A. J.; et al. (2013) *A submillimetre-bright $z \sim 3$ overdensity behind a $z \sim 1$ supercluster revealed by SCUBA-2 and Herschel*. MNRAS: Letters, 436, L40.
4. **Noble, Allison**; Webb, T. M. A.; Muzzin, A.; et al. (2013) *A Kinematic Approach To Assessing Environmental Effects: Star-Forming Galaxies in a $z \sim 0.9$ SpARCS cluster using Spitzer 24 μm Observations*. ApJ, 768, 118.
5. **Noble, Allison**; Webb, T. M. A.; Ellingson, E.; et al. (2012) *Submillimetre Source Counts in the Fields of High-Redshift Galaxy Clusters*. MNRAS 419, 1983.

Rose A. Finn
Department of Physics & Astronomy, Siena College, Loudonville, NY 12211

Role: Analysis of UV, optical, and infrared star-formation rates, including the spatial distribution of star-formation within galaxies.

Current Position:

Siena College	Professor of Physics	2016−
Siena College	Head of Physics Department	2011−

Former Positions:

Siena College	Associate Professor of Physics	2011−2016
Siena College	Assistant Professor of Physics	2005−2011
University of Massachusetts	NSF Astronomy & Astrophysics Postdoctoral Fellow	2003−2005
Albany Academy for Girls	Science Teacher	1994−1997

Education:

University of Virginia	Astronomy−Physics	B.A. 1992
Dartmouth College	Physics	M.S. 1994
University of Arizona	Astronomy	Ph.D. 2003

National and International Committees:
Board Member of Astronomical Society of New York (2005−present); NSF Astronomy & Astrophysics Postdoctoral Fellowship Selection Panel; NSF Astronomy Division Committee of Visitors (2008)

Honors:
NASA Space Grant Fellowship (1997), NASA Graduate Student Researchers Project Fellowship (2000), NSF Astronomy & Astrophysics Postdoctoral Fellowship (2003), NSF Career Award (2008)

Selected Publications:

Finn, Desai, Rudnick, et al. "*The Local Cluster Survey: Probing Gas Stripping in Nearby Groups and Clusters*", 2017, ApJ, submitted

Odekon, Koopmann, Haynes, **Finn**, and McGowan, Micula, Reed, Giovanelli, Hallenbeck, 2016, "The HI Content of Galaxies in Groups and Clusters as Measured by ALFALFA", 2016, ApJ, 824, 110

Jablonka, Combes, Rines, **Finn**, Welch, "Cold gas in the inner regions of intermediate redshift clusters", 2013, *Astronomy & Astrophysics*, 557, 103

Finn, Desai, Rudnick, Poggianti, Bell, Hinz, Jablonka, Milvang-Jensen, Moustakas, Rines, Zaritsky, "Dust-Obscured Star-Formation in Intermediate Redshift Galaxy Clusters", 2010, *Astrophysical Journal*, 720, 87

Finn, Zaritsky, McCarthy, Poggianti, Rudnick, Halliday, Milvang-Jensen, Pello, & Simard, "Hα-Derived Star-Formation Rates for three $z = 0.75$ EDisCS Galaxy Clusters", 2005, *Astrophysical Journal*, 630, 206

VAN KAMPEN, Eelco

- affiliation:

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EASC/ARC
Karl-Schwarzschild-Str. 2
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Germany

tel: +49 89 3200 6875
fax: +49 89 3200 6898
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- current position: Staff Astronomer at the European Southern Observatory

- former positions:

European Community Postdoctoral Research Fellow at the Royal Observatory
Edinburgh, 1 August 1994 - 20 September 1996
Postdoctoral Research Fellow at the Theoretical Astrophysics Center, Copenhagen
1 October 1996 - 30 September 1998
Postdoctoral Research Fellow at the Institute for Astronomy, Edinburgh
1 October 1998 - 1 March 2003
Lecturer at the Institute for Astro- and Particle Physics, Innsbruck
1 March 2003 - 30 October 2008

- education:

Doctoraal (equivalent to *Master of Science*) at Leiden University, 27 June 1989
Doctoraat (equivalent to *Doctor of Philosophy*) at Leiden University, 7 September 1994,
thesis entitled 'Formation and Evolution of Clusters of Galaxies and Voids'

- selected publications:

- Dunlop et al. 2017, A deep ALMA image of the Hubble Ultra Deep Field, MNRAS, 466, 861
- Popping et al. 2017, ALMA reveals starburst-like interstellar medium conditions in a compact star-forming galaxy at z∼2 using [CI] and CO, A&A, in press
- Rujopakarn et al. 2016, VLA and ALMA Imaging of Intense, Galaxy-Wide Star Formation in z 2 Galaxies, ApJ, 833, 12
- Saulder et al. 2016, The matter distribution in the local universe as derived from galaxy groups in SDSS DR12 and 2MRS, A&A, 596, 14
- Popping et al. 2016, Sub-mm emission line deep fields: CO and [C II] luminosity functions out to z = 6, MNRAS, 461, 93
- Simpson et al. 2015, The SCUBA-2 Cosmology Legacy Survey: ALMA Resolves the Rest-frame Far-infrared Emission of Sub-millimeter Galaxies, ApJ, 799, 81
- Alpaslan et al. 2014, Galaxy And Mass Assembly (GAMA): the large-scale structure of galaxies and comparison to mock universes, MNRAS, 438, 177
- Owers et al, 2013, Galaxy and Mass Assembly (GAMA): Witnessing the Assembly of the Cluster ABELL 1882, ApJ, 772, 104
- van Kampen et al. 2012, Herschel-ATLAS/GAMA: spatial clustering of sub-mm galaxies at low redshifts, MNRAS, 426, 3455

Gabriella De Lucia – Curriculum Vitae et Studiorium

Current position: Senior researcher ('Primo Ricercatore' - equivalent to Associate Professor) at INAF Astronomical Observatory of Trieste (OATs).

Expertise: Theoretical models of galaxy formation and evolution; N-body simulations; Evolution of galaxies as a function of the environment; Galaxy clusters and Large scale structure.

Education: *Laurea in Fisica* at the University "Federico II" of Naples in 2000; *Doctor Rerum Naturalium* (Ph.D.), at the Ludwig-Maximilian Universität of München in 2004.

Positions held: *Research contract* at the Astronomical Observatory of Capodimonte (5 months in 2000); *Graduate student* at the Max-Planck Institute for Astrophysics in Garching bei München from 2001 to 2004; *Long term PostDoctoral Fellowship* at MPA from 2004 to 2009; Primo Ricercatore (fixed term position funded by ERC) at INAF-OATs from February 2009 to January 2014; Researcher (permanent) at INAF-OATs since 2013.

Honors: MERAC Prize for the Best Early Career Researcher in Theoretical Astrophysics (awarded by the European Astronomical Society) in 2013; Order of Merit (Officer) of the Italian Republic (awarded by the President of the Italian Republic) in 2011; ERC Starting Independent Researcher Grant (success rate of the call $\sim 3\%$) in 2008.

Professional Activities (last 5 years): Frequent Peer Reviewer for *Monthly Notices of the Royal Astronomical Society* (main journal and letters), *The Astrophysical Journals* (main journal and letters), *Astronomy & Astrophysics*; Time Allocation Committee for the telescopes TNG/LBT/REM (2014-2016); ESO Observing Programmes Committee (Periods 91 and 92); Expert Reviewer for Physics Discovery Grants for the Natural Science Research Council of Canada (2016), ERC Starting 2015 call, ERC Advanced 2013 call, and the French Research Agency (2012).

Conferences and Seminars: 16 invited reviews at International Conferences; 14 invited talks at International Conferences; 25 invited seminars and colloquia.

Publications: 135 refereed papers in peer-reviewed journals with more than 9700 citations (excluding self-citations). 18 refereed publications as first author and 27 as second author. Selected publications:

- *Galaxy assembly, stellar feedback and metal enrichment: the view from the GAEA model*, M. Hirschmann, **G. De Lucia**, F. Fontanot, 2016, MNRAS, 461, 1760
- *Elemental abundances in Milky Way like galaxies from a hierarchical galaxy formation model*, **G. De Lucia**, L. Tornatore, C.S. Frenk, A. Helmi, J.F. Navarro, S.D.M. White, 2014, MNRAS, 444, 970
- *The environmental history of group and cluster galaxies in a ΛCDM Universe*, **G. De Lucia**, S. Weinmann, B. Poggianti, A. Aragon-Salamanca, D. Zaritsky, 2012, MNRAS, 423, 1277
- *The hierarchical formation of the brightest cluster galaxies*, **Gabriella De Lucia** and Jérémy Blaizot, 2007, MNRAS, 375, 2
- *The Buildup of the Red Sequence in Galaxy Clusters since $z \sim 0.8$*, **G. De Lucia**, B. M. Poggianti, A. Aragón-Salamanca, D. Clowe, C. Halliday, P. Jablonka, B. Milvang-Jensen, R. Pelló, S. Poirier, G. Rudnick, R. Saglia, L. Simard, S. D. M. White, 2004, ApJ Letters, 610, 77

MEMBERS TEAM CV

NAME, First Name: JABLONKA, Pascale

Affiliation Ecole Polytechnique Fédérale de Lausanne (EPFL)

Role in the project: Leader of SEEDisCS and VIRGO CO observations

Current position: Professor. Scientific collaborator at EPFL.

Former Position(s):

- 2012 **Senior scientist at CNRS** *(equivalent to University Professor)*.
- 2009-present **Scientific Collaborator** at EPFL
- 2005-2009 **Research associate**, *Maître assistante*, Université de Genève, Switzerland. 2005-present **On leave of absence from CNRS**, *Observatoire de Paris, GEPI CNRS UMR 8111, France*
- 1993 **Researcher at CNRS**, *Chargée de recherche*, France.
- 1992-1994 **Postdoctoral fellow at ESO**, *European Southern Observatory Headquarters, Munich, Germany*.
- 1991-1992 **Teaching and research associate**, *(Attachée Temporaire d'Enseignement et de Recherche)*, Uni- versity Paris XI.

Services in National and/or International Committees (last ones):

- 2016-2018 **Elected member of the EPFL IPHYS (Physics Institute) council**. 2016-2020 **Appointed member of the Strasbourg observatory's board of directors**, *France*.
- 2016-2018 **Chair of ALMA review panel**, *Scientific Category "Galaxies and galactic nuclei"*, Europe/USA/Asia.
- 2016 **European H2020 expert**,
- 2012-2016 **Appointed member of the CoNRS's board (Comité national du CNRS, Section 17)**

Selected Publications:

- Jablonka, P.; Combes, F.; Rines, K.; Finn, R.; Welch, T, 2013, A&A, 57, 103: Cold gas in the inner regions of intermediate redshift clusters
- Cantale, N.; Jablonka, P, 2016, A&A, 589. 82: Disc colours in field and cluster spiral galaxies at $0.5 \lesssim z \lesssim 0.8$
- Nichols, M.; Revaz, Y.; Jablonka, P.: 2015, A&A, 582, 23: The post-infall evolution of a satellite galaxy