JASON MELBOURNE

Curriculum Vitae

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Education Doctor of Philosophy, Astronomy & Astrophysics

May 2006

University of California, Santa Cruz

Thesis: "The Optical and Infrared Evolution of Galaxies" (Advisors: C. Max & D. C. Koo)

MASTER OF ARTS, ASTRONOMY

May 2001

Wesleyan Univeristy

Thesis: "Metal Abundances in KISS Galaxies" (Advisor J. J. Salzer)

BACHELOR OF ARTS, PHYSICS & ASTRONOMY

May 1995

University of California, Berkeley

Appointments POSTDOCTORAL FELLOW, Physics Department, California Institute of Technology

POSTDOCTORAL FELLOW, Center for Adaptive Optics, UC Santa Cruz

2006-2007

2012 - 2015

2007 -

Grants

TRANSFORMING UNDERGRADUATE STEM EXPERIENCES

THROUGH THE NEXT GENERATION OF SCIENTIST AND ENGINEER EDUCATORS

NSF, Department of Undergraduate Education, Collaborator \$600,000

PANCHROMATIC HUBBLE ANDROMEDA TREASURY

2010 - 2012

 HST Multi-cycle Treasury Program, Caltech P.I. of sub-award \$93,000

The Sites and Triggers of Star Formation in Large Disk Galaxies Since z=1 2008

HST Archival Grant, AR-10965. P.I. \$53,000

Major Research Programs BLACK HOLE GROWTH, AND STELLAR EVOLUTION

2011-present

Tracing signatures of massive evolved stars near the centers of nearby AGN, these mass loosing stars may be responsible for transporting gas onto the black holes.

ASYMPTOTIC GIANT BRANCH (AGB) STARS

2009-present

A study of AGB stars in nearby galaxies and star clusters. I showed the AGB contributes a large fraction of the near-infrared light of galaxies, but that recent models over-predict their contribution.

DUST OBSCURED GALAXIES

2007-present

A study of ultra-luminous infrared galaxies in the early universe. I led multiple papers on morphologies, black hole masses, and far-infrared dust properties of these extreme galaxies. I also organize our multi-institutional team meetings, write observing proposals, and plan future science.

LUMINOUS INFRARED GALAXIES (LIRGS)

2005-2007

Morphologies and stellar populations of z=1 LIRGs. I showed that the high star formation rates in z=1 galaxies were occurring, primarily, in morphologically normal disks. My results suggest that the decline in star formation since z=1 has been driven by gas depletion rather than a drop in merger rates, an alternative hypothesis.

CENTER FOR ADAPTIVE OPTICS TREASURY SURVEY

2005 - 2007

High spatial resolution near-infrared imaging of 300 $z \sim 1$ galaxies from Keck adaptive optics (AO). I developed AO observing techniques, built the first online AO database, and led papers on high-z

supernova, galaxy mergers, and infrared luminous galaxies.

METALLICITIES OF DWARF GALAXIES

2000 - 2005

Oxygen abundance of hundreds of low redshift dwarf galaxies. First to show that the metallicity-luminosity relation holds over roughly 10 magnitudes in luminosity.

Instrumentation

GEMINI-N ADAPTIVE OPTICS WORKING GROUP

2012

I was a co-lead of the extra-galactic team charged with designing a vision for the next generation Gemini-N adaptive optics instrument.

NIRES, A NEAR-INFRARED SPECTROGRAPH FOR KECK OBSERVATORY 2010—present I led the detector characterization, and showed that it would not achieve the required performance. With the University of Toronto, we have purchased a new detector. (P.I. Keith Matthews)

THIRTY METER TELESCOPE (TMT) SITE TESTING

2004

I participated in a TMT site testing campaign on Mauna Kea. I assisted in deployment of kite and balloon born instrumentation, and helped synthesize the results. (P.I. Mark Chun)

Selected Successful Proposals & Observing

THE STARBURST-AGN CONNECTION, P.I.

2012

Keck Laser Guide Star Adaptive Optics Integral Field Spectroscopy of Nearby AGN

THE LOCAL GROUP INFRARED CLUSTER SURVEY, P.I.

2011

2010

Keck Laser Guide Star Adaptive Optics Imaging with NIRC2 $\,$

The Panchromatic Hubble Andromeda Treasry, Co.I.

HST Multi-cycle Treasury Program for Multi-band Imaging Across Andromeda Galaxy.

Rest-frame Optical Spectroscopy of z=2 Dust Obscured Galaxies, P.I. 2009

Palomar Near-IR Spectroscopy with TripleSpec Keck Integral-Field Spectroscopy with OSIRIS

RESOLVED STELLAR POPULATIONS OF NEARBY GALAXIES, P.I.

2008

Keck Laser Guide Star Adaptive Optics Imaging with NIRC2

A Calibration Database for Stellar Models of AGB Stars, Co.I.

2008

HST Near-IR Imaging with WFC3, SNAP-11719

THE DISTRIBUTION OF WARM DUST IN LUMINOUS INFRARED GALAXIES, P.I. 2008–2009

Gemini Mid-IR Imaging with TReCS

2007-2008

Keck Laser Guide Star Adaptive Optics Imaging with NIRC2

The Morphologies of z=2 Dust Obscured Galaxies, Co.I.

REST-FRAME OPTICAL MORPHOLOGIES OF GALAXIES IN GOODS, Co.I.

2004-2006

Keck Laser Guide Star Adaptive Optics Imaging with NIRC2

Teaching Experience

Adjunct Professor, Pomona College

2010-2011

Introductory Physics Laboratory. I collaborated on the design of 20 labs in Mechanics and E&M. My focus was on defining content and process goals. I designed and taught a mini-lecture at the start of each lab

VISITING PROFESSOR, CALTECH

2010

Taught two lectures of graduate level Stellar Structure and Evolution.

DIRECTOR, THINK LIKE AN ASTRONOMER

2010

In an effort to promote science literacy, I have developed a 5-session astronomy short course for the general public. This course introduces major themes in astronomy through inquiry-based activities, and exquisite astronomical images. I taught this course at Glendale Community College.

ADJUNCT PROFESSOR, MT SAN ANTONIO COMMUNITY COLLEGE

2009

Introductory Astronomy Lecture and Lab. I developed and taught the curriculum, for this lecture and lab course, including a semester long Sun tracking lab, and a galaxy morphology inquiry activity.

LEAD INSTRUCTOR, THE CENTER FOR ADAPTIVE OPTICS SHORT COURSE 2005 A one-week course on astronomy, light, and optics to prepare undergraduates for summer research positions in the Center for Adaptive Optics. TEACHING ASSISTANT, UNIVERSITY OF CALIFORNIA SANTA CRUZ 2001 - 2002Selected MIN JI KWON HIGH-SCHOOL SUMMER STUDENT 2012 Students Photometry of star clusters in M33 observed with Keck Adaptive Optics Advised GAUTAM UPADHYA, CALTECH SUMMER UNDERGRADUATE RESEARCH FELLOW 2011-present Tracking the Evolved Stars of M33 with Adaptive Optics Imaging in the Near-IR HANAE INAMI, GRADUATE STUDENT AT THE SPITZER SCIENCE CENTER 2010-present Integral field spectroscopy of low redshift Luminous Infrared Galaxies John Forbes, Caltech Undergraduate 2009 - 2010Spatially Resolved Stellar Populations of z=1 Luminous Infrared Galaxies ABHIRAM CHIVIKULA, CALTECH SUMMER UNDERGRADUATE RESEARCH FELLOW 2008 Spectral Energy Distributions of High Redshift Dust-Obscured Galaxies Selected **ARXIVNOW** 2012 Service A Mac OSX app I wrote to rapidly peruse, comment on, and archive the daily astro-ph news www.mybigscience.com/arxivnow.html SPACE WEEK 2012 NASA Spitzer representative at the Los Angeles Science Museum Space Week in honor of the arrival of the space shuttle. SCIENCE ORGANIZING COMMITTEE 2010 Massive Galaxies III, Tucson, Arizona NSF PANEL MEMBER 2007-2008 Astronomy and Astrophysics Research Grants DIRECTOR AND LEAD INSTRUCTOR 2006, 2008 The Keck Adaptive Optics Workshop, University of California Santa Cruz SCIENCE ADVISOR, THE CALIFORNIA MATH AND SCIENCE PROJECT 2006 Watsonville California School District Referee 2005-present The Astronomical Journal, The Astrophysical Journal, and Publications of the Astronomical Society of the Pacific Selected KECK SCIENCE MEETING, SAN DIAGO CA September 2012 Recent "The Local Group Infrared Cluster Survey" Talks GEMINI-N ADAPTIVE OPTICS WORKSHOP June 2012 "High Spatial Resolution Studies of Resolved Stellar Populations" Conference: Through the Infrared Looking Glass, Pasadena CA September 2011 "The Far-IR Spectral Energy Distributions of z = 2 Dust Obscured Galaxies" CONFERENCE: THE STARBUST-AGN CONNECTION: MADRID, SPAIN September 2011 "Black Hole Masses and Star Formation Rates of z=2 Dust Obscured Galaxies Revealed with Keck OSIRIS Integral Field Spectroscopy" COLLOQUIUM: UC SAN DIEGO, UCLA, UC IRVINE, COLUMBIA, HARVARD March-May 2011 "Infrared Luminosities of AGB and RHeB Stars from HST WFC3: Implications for Measuring Stellar Masses of Galaxies" CONFERENCE: WHY DO GALAXIES CARE ABOUT AGB STARS? VIENNA September 2010 "The Contribution of Asymptotic Giant Branch Stars to the Infrared Luminosities

of Galaxies: Implications for Measuring Stellar Masses of Galaxies"

Colloquium: University of Hawaii September 2010

"Dust Obscured Galaxies at z=2"

COLLOQUIUM: UC SANTA CRUZ April 2010

"The Local Group Infrared Cluster Survey"

CONFERENCE: DWARF GALAXIES IN THE LOCAL UNIVERSE, SAO, RUSSIA September 2009

"Asymptotic Giant Branch Stars as Probes of Star Formation History"

Selected Collaborations PANCHROMATIC HUBBLE ANDROMEDA TREASURY (PHAT)

P.I. Dalcanton

LOCAL GROUP INFRARED CLUSTER SURVEY (LOGICS)

P.I. Melbourne

NOAO DEEP WIDE FIELD SURVEY (NDWFS)

P.I.s Dey, Januzzi

Great Observatories All-sky LIRG Survey (GOALS)

P.I.s Sanders, Armus

CENTER FOR ADAPTIVE OPTICS TREASURY SURVEY (CATS)

P.I.s Larkin, Max, Koo

References

DR. B. T. SOIFER — DIRECTOR, SPITZER SCIENCE CENTER,

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Dr. Julianne Dalcanton — Professor

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Dr. James Larkin — Professor

Department of Physics and Astronomy

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Los Angeles, CA. 90095-1547

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Dr. Lee Armus — Staff Scientist

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Publication Summary FIRST-AUTHOR PUBLICATIONS IN REVIEW

1

First-Author Refereed Publications	16
Additional Refereed Publications	31
FIRST-AUTHOR CITATION COUNT, NOVEMBER 2012	346
TOTAL CITATION COUNT, NOVEMBER 2012	1252

First-Author Publications in Review

The Contribution of Thermally-Pulsing Asymptotic Giant Branch and Red Super Giant Stars to the Luminosities of the Magellanic Clouds at $1-24~\mu M$ Melbourne, J. & Boyer, M. 2012. Astrophysical Journal, in review

First-Author Refereed Publications

THE SPECTRAL ENERGY DISTRIBUTIONS AND INFRARED LUMINOSITIES OF DUST OBSCURED GALAXIES FROM HERSCHEL AND SPITZER, NOT YOUR AVERAGE z=2 ULIRGS **Melbourne**, **J.**, Soifer, B.T., Desai, V., Pope A., Armus L., Dey, A., Bussmann R.S., Jannuzi,

B.T., Alberts, S. 2012. The Astronomical Journal, Volume 143, Issue 5, article id. 125

THE CONTRIBUTION OF TP-AGB AND RHEB STARS TO THE NEAR-IR LUMINOSITY OF LOCAL GALAXIES: IMPLICATIONS FOR STELLAR MASS MEASUREMENTS OF HIGH REDSHIFT GALAXIES **Melbourne**, **J.**, Williams, B., Dalcanton, J., Rosenfield, P., Girardi, L., Marigo, P., Weisz, D., Dolphin A., Boyer, M., Olsen, K., Skillman E., Seth, A. 2012. The Astrophysical Journal, Volume 748, Issue 1, article id. 47

THE BLACK HOLE MASSES AND STAR FORMATION RATES OF z > 1 DUST OBSCURED GALAXIES (DOGS): RESULTS FROM KECK OSIRIS INTEGRAL FIELD SPECTROSCOPY **Melbourne**, **J.**, Peng, Chien Y, Soifer, B.T., Desai, V., Armus, L., Bussmann, R.S., Dey A., Matthews, K. 2011. The Astronomical Journal, Volume 141, Issue 4, pp. 141–152

THE ASYMPTOTIC GIANT BRANCH AND THE TIP OF THE RED GIANT BRANCH AS PROBES OF STAR FORMATION HISTORY: THE NEARBY DWARF IRREGULAR GALAXY KKH 98 **Melbourne, J.**, Williams, B., Dalcanton, J., Ammons, S.M., Max, C., Koo, D.C., Girardi, L., Dolphin, A. 2010. The Astrophysical Journal, Volume 712, Issue 1, pp. 469–483

HIGH REDSHIFT DUST OBSCURED GALAXIES, A MORPHOLOGY-SED CONNECTION REVEALED BY KECK ADAPTIVE OPTICS

Melbourne, J., Bussman, S., Brand, K., Desai, V., Armus, L., Dey, A., Jannuzi, B. T., Houck, J. R., Soifer, B. T., Matthews, K. 2008. The Astronomical Journal, Volume 137, Issue 6, pp. 4854–4866

Morphologies of High-Redshift Dust-Obscured Galaxies from Keck Laser Guide Star Adaptive Optics

Melbourne, J., Desai, V., Armus, Lee, Dey, Arjun, Brand, K., Thompson, D., Soifer, B. T., Matthews, K., Jannuzi, B. T., Houck, J. R., 2008. The Astronomical Journal, Volume 136, Issue 3, pp. 1110-1117

TRIGGERED OR SELF-REGULATED STAR FORMATION WITHIN INTERMEDIATE REDSHIFT LUMINOUS INFRARED GALAXIES. I. MORPHOLOGIES AND SPECTRAL ENERGY DISTRIBUTIONS Melbourne, J., Ammons, M., Wright, S. A., Metevier, A., Steinbring, E., Max, C., Koo, D. C., Larkin, J. E., Barczys, M., 2008. The Astronomical Journal, Volume 135, Issue 4, pp. 1207–1224

Rest-Frame R-band Lightcurve of a $z\sim 1.3$ Supernova Obtained with Keck Laser Adaptive Optics

Melbourne, J., Dawson K., Koo D. C., Max C., Larkin J. Wright S., Steinbring E., Barczys, M., Aldering, G., Barbary, K., Doi, M., Fadeyev, V., Goldhaber, G., Hattori, T., Ihara Y., Kashikawa N., Konishi K., Kowalski M., Kuznetsova, N., Lidman, C., Morokuma, T., Perlmutter, S., Rubin D., Schlegel D., Spadafora, A. L., Takanashi, N., Yasuda, N. 2007. The Astronomical Journal. Volume. 133, Issue 6, pp. 2709–2715

RADIUS DEPENDENT LUMINOSITY EVOLUTION OF BLUE GALAXIES IN GOODS-N

Melbourne, J., Phillips, A., Harker, J., Novak, G., Koo, D. C., Faber, S. M., 2007. The Astrophysical Journal. Volume 660, Issue 1, pp. 81–96

EXPLORING THE OPTICAL AND INFRARED EVOLUTION OF GALAXIES **Melbourne**, J., 2006. Ph.D. Thesis, UC Santa Cruz

OPTICAL MORPHOLOGY EVOLUTION OF INFRARED LUMINOUS GALAXIES IN GOODS-N **Melbourne**, **J.**, Koo, D. C., Le Floch, E., 2005. The Astrophysical Journal. Volume 632, Issue 2, pp. L65–L68

MERGING GALAXIES IN GOODS-S: FIRST EXTRAGALACTIC RESULTS FROM KECK LASER ADAPTIVE OPTICS

Melbourne, J., Wright, S. A., Barczys, M., Bouchez, A. H., Chin, J., van Dam, M. A., Hartman, S., Johansson, E., Koo, D. C., Lafon, R., Larkin, J., Le Mignant, D., Lotz, J., Max, C. E., Pennington, D. M., Stomski, P. J., Summers, D., Wizinowich, P. L., 2005. The Astrophysical Journal. Volume 625, Issue 1, pp. L27–L30

MEASURING THE SLOPE OF THE DUST EXTINCTION LAW AND THE POWER SPECTRUM OF DUST CLOUDS USING DIFFERENTIALLY REDDENED GLOBULAR CLUSTERS

Melbourne, J., Guhathakurta, P., 2004. The Astronomical Journal. Volume 128, Issue 1, pp. 271–286

METAL ABUNDANCES OF KISS GALAXIES. II. NEBULAR ABUNDANCES OF 12 LOW-LUMINOSITY EMISSION-LINE GALAXIES

Melbourne, J., Phillips, A., Salzer, John J., Gronwall, C., Sarajedini, Vicki L., 2004. The Astronomical Journal. Volume 127, Issue 2, pp. 686–703

METAL ABUNDANCES OF KISS GALAXIES. I. COARSE METAL ABUNDANCES AND THE METALLICITY-LUMINOSITY RELATION

Melbourne, J., Salzer, John J., 2002. The Astronomical Journal. Volume 123, Issue 5, pp. 2302–2311

CCD PHOTOMETRY OF THE GLOBULAR CLUSTER NGC 4833 AND EXTINCTION NEAR THE GALACTIC PLANE

Melbourne, J., Sarajedini, Ata, Layden, Andrew, Martins, Donald H., 2000. The Astronomical Journal. Volume 120, Issue 6, pp. 3127–3138

Other Refereed Publications

THE PANCHROMATIC HUBBLE ANDROMEDA TREASURY. III. MEASURING AGES AND MASSES OF PARTIALLY RESOLVED STELLAR CLUSTERS

Beerman, Lori C.; Johnson, L. Clifton; Fouesneau, Morgan; Dalcanton, Julianne J.; Weisz, Daniel R.; Seth, Anil C.; Williams, Ben F.; Bell, Eric F.; Bianchi, Luciana C.; Caldwell, Nelson; Dolphin, Andrew E.; Gouliermis, Dimitrios A.; Kalirai, Jason S.; Larsen, Sren S.; Melbourne, Jason L.; Rix, Hans-Walter; Skillman, Evan D. 2012. The Astrophysical Journal, Volume 760, Issue 2, article id. 104

SPECTRAL ENERGY DISTRIBUTIONS OF LOCAL LUMINOUS AND ULTRALUMINOUS INFRARED GALAXIES

U, Vivian; Sanders, D. B.; Mazzarella, J. M.; Evans, A. S.; Howell, J. H.; Surace, J. A.; Armus, L.; Iwasawa, K.; Kim, D.-C.; Casey, C. M.; Vavilkin, T.; Dufault, M.; Larson, K. L.; Barnes, J. E.; Chan, B. H. P.; Frayer, D. T.; Haan, S.; Inami, H.; Ishida, C. M.; Kartaltepe, J. S.; Melbourne, J. L.; Petric, A. O. 2012. The Astrophysical Journal Supplement, Volume 203, Issue 1, article id. 9

HOT DISKS AND DELAYED BAR FORMATION Sheth, Kartik; Melbourne, Jason; Elmegreen, Debra Meloy; Elmegreen, Bruce G.; Athanassoula, E.; Abraham, Roberto G.; Weiner, Benjamin J. 2012. The Astrophysical Journal, Volume 758, Issue 2, article id. 136

THE PANCHROMATIC HUBBLE ANDROMEDA TREASURY

Dalcanton, Julianne J.; Williams, Benjamin F.; Lang, Dustin; Lauer, Tod R.; Kalirai, Jason S.; Seth, Anil C.; Dolphin, Andrew; Rosenfield, Philip; Weisz, Daniel R.; Bell, Eric F.; Bianchi, Luciana C.; Boyer, Martha L.; Caldwell, Nelson; Dong, Hui; Dorman, Claire E.; Gilbert, Karoline M.; Girardi, Lo; Gogarten, Stephanie M.; Gordon, Karl D.; Guhathakurta, Puragra; Hodge, Paul W.; Holtzman, Jon A.; Johnson, L. Clifton; Larsen, Sren S.; Lewis, Alexia; Melbourne, Jason L.; Olsen, Knut A. G.; Rix, Hans-Walter; Rosema, Keith; Saha, Abhijit; Sarajedini, Ata; Skillman, Evan D.; Stanek, Krzysztof Z. 2012. The Astrophysical Journal Supplement, Volume 200, Issue 2, article id. 18

CO J = 2 – 1 Line Emission in Cluster Galaxies at $z\sim 1$: Fueling Star Formation in Dense Environments

Wagg, Jeff; Pope, Alexandra; Alberts, Stacey; Armus, Lee; Brodwin, Mark; Bussmann, Robert S.; Desai, Vandana; Dey, Arjun; Jannuzi, Buell; Le Floc'h, Emeric; Melbourne, Jason; Stern, Daniel. 2012. The Astrophysical Journal, Volume 752, Issue 2, article id. 91

The Hubble Space Telescope Cluster Supernova Survey. V. Improving the Darkenergy Constraints above z>1 and Building an Early-type-hosted Supernova Sample

Suzuki, N.; Rubin, D.; Lidman, C.; Aldering, G.; Amanullah, R.; Barbary, K.; Barrientos, L. F.; Botyanszki, J.; Brodwin, M.; Connolly, N.; Dawson, K. S.; Dey, A.; Doi, M.; Donahue, M.; Deustua, S.; Eisenhardt, P.; Ellingson, E.; Faccioli, L.; Fadeyev, V.; Fakhouri, H. K.; Fruchter, A. S.; Gilbank, D. G.; Gladders, M. D.; Goldhaber, G.; Gonzalez, A. H.; Goobar, A.; Gude, A.; Hattori, T.; Hoekstra, H.; Hsiao, E.; Huang, X.; Ihara, Y.; Jee, M. J.; Johnston, D.; Kashikawa, N.; Koester, B.; Konishi, K.; Kowalski, M.; Linder, E. V.; Lubin, L.; Melbourne, J.; Meyers, J.; Morokuma, T.; Munshi, F.; Mullis, C.; Oda, T.; Panagia, N.; Perlmutter, S.; Postman, M.; Pritchard, T.; Rhodes, J.; Ripoche, P.; Rosati, P.; Schlegel, D. J.; Spadafora, A.; Stanford, S. A.; Stanishev, V.; Stern, D.; Strovink, M.; Takanashi, N.; Tokita, K.; Wagner, M.; Wang, L.; Yasuda, N.; Yee, H. K. C.; Supernova Cosmology Project. 2012. The Astrophysical Journal, Volume 746, Issue 1, article id. 85

RESOLVED NEAR-INFRARED STELLAR POPULATIONS IN NEARBY GALAXIES

Dalcanton, Julianne J.; Williams, Benjamin F.; Melbourne, Jason L.; Girardi, Lo; Dolphin, Andy; Rosenfield, Philip A.; Boyer, Martha L.; de Jong, Roelof S.; Gilbert, Karoline; Marigo, Paola; Olsen, Knut; Seth, Anil C.; Skillman, Evan. 2012. The Astrophysical Journal Supplement, Volume 198, Issue 1, article id. 6

The Star Formation Histories of $z\sim 2$ Dust-obscured Galaxies and Submillimeter-selected Galaxies

Bussmann, R. S.; Dey, Arjun; Armus, L.; Brown, M. J. I.; Desai, V.; Gonzalez, A. H.; Jannuzi, B. T.; Melbourne, J.; Soifer, B. T. 2012. The Astrophysical Journal, Volume 744, Issue 2, article id. 150

AGN UNIFICATION AT $z \sim 1$: u - R COLORS AND GRADIENTS IN X-RAY AGN HOSTS Ammons, S. Mark, Rosario, David J. V., Koo, David C., Dutton, Aaron A., **Melbourne**, **J.**, Max, Claire E., Mozena, Mark, Kocevski, Dale D., McGrath, Elizabeth J., Bouwens, Rychard J., Magee, Daniel K. 2011. The Astrophysical Journal, Volume 740, Issue 1, pp. 3

THE NUCLEAR STRUCTURE IN NEARBY LUMINOUS INFRARED GALAXIES: HUBBLE SPACE TELESCOPE NICMOS IMAGING OF THE GOALS SAMPLE

Haan, S., Surace, J. A., Armus, L., Evans, A. S., Howell, J. H., Mazzarella, J. M., Kim, D. C., Vavilkin, T., Inami, H., Sanders, D. B., Petric, A., Bridge, C. R., **Melbourne**, **J.**, Charmandaris, V., Diaz-Santos, T., Murphy, E. J., U, V., Stierwalt, S., Marshall, J. A. 2011. The Astronomical Journal, Volume 141, Issue 3, pp. 100

Hubble Space Telescope Morphologies of $z\sim 2$ Dust-obscured Galaxies. II. Bump Sources

Bussmann, R. S., Dey, A., Lotz, J., Armus, L., Brown, M., Desai, V., Eisenhardt, P., Higdon, J.,

Higdon, S., Jannuzi, B. T., Le Floc'h, E., **Melbourne**, J., Soifer, B. T., Weedman, D. 2011. The Astrophysical Journal, Volume 733, Issue 1, pp. 21

ACTIVE DISK BUILDING IN A LOCAL H I-MASSIVE LIRG: THE SYNERGY BETWEEN GAS, DUST, AND STAR FORMATION

Cluver, M. E., Jarrett, T. H., Kraan-Korteweg, R. C., Koribalski, B. S., Appleton, P. N., **Melbourne**, J., Emonts, B., Woudt, P. A. 2010. The Astrophysical Journal, Volume 725, Issue 2, pp. 1550-1562

THE ACS NEARBY GALAXY SURVEY TREASURY. IX. CONSTRAINING ASYMPTOTIC GIANT BRANCH EVOLUTION WITH OLD METAL-POOR GALAXIES

Girardi, Lo, Williams, Benjamin F., Gilbert, Karoline M., Rosenfield, Philip, Dalcanton, Julianne J., Marigo, Paola, Boyer, Martha L., Dolphin, Andrew, Weisz, Daniel R., **Melbourne**, **J.**, Olsen, Knut A. G., Seth, Anil C., Skillman, Evan. 2010. The Astrophysical Journal, Volume 724, Issue 2, pp. 1030-1043

THE BURIED STARBURST IN THE INTERACTING GALAXY II ZW 096 AS REVEALED BY THE SPITZER SPACE TELESCOPE

Inami, H., Armus, L., Surace, J. A., Mazzarella, J. M., Evans, A. S., Sanders, D. B., Howell, J. H., Petric, A., Vavilkin, T., Iwasawa, K., Haan, S., Murphy, E. J., Stierwalt, S., Appleton, P. N., Barnes, J. E., Bothun, G., Bridge, C. R., Chan, B., Charmandaris, V., Frayer, D. T., Kewley, L. J., Kim, D. C., Lord, S., Madore, B. F., Marshall, J. A., Matsuhara, H., **Melbourne**, **J.**, Rich, J., Schulz, B., Spoon, H. W. W., Sturm, E., U, V., Veilleux, S., Xu, K. 2010. The Astronomical Journal, Volume 140, Issue 1, pp. 63-74

THE GREAT OBSERVATORIES ALL-SKY LIRG SURVEY: COMPARISON OF ULTRAVIOLET AND FARINFRARED PROPERTIES

Howell, Justin H., Armus, Lee, Mazzarella, Joseph M., Evans, Aaron S., Surace, Jason A., Sanders, David B., Petric, Andreea, Appleton, Phil, Bothun, Greg, Bridge, Carrie, Chan, Ben H. P., Charmandaris, Vassilis, Frayer, David T., Haan, Sebastian, Inami, Hanae, Kim, Dong-Chan, Lord, Steven, Madore, Barry F., **Melbourne**, J., Schulz, Bernhard, U, Vivian, Vavilkin, Tatjana, Veilleux, Sylvain, Xu, Kevin. 2010. The Astrophysical Journal, Volume 715, Issue 1, pp. 572-588

Infrared Luminosities and Dust Properties of $z\sim2$ Dust-obscured Galaxies Bussmann, R. S., Dey, Arjun, Borys, C., Desai, V., Jannuzi, B. T., Le Floc'h, E., **Melbourne**, **J.**, Sheth, K., Soifer, B. T. 2009. The Astrophysical Journal, Volume 705, Issue 1, pp. 184-198

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