

**Donald F. Figer**  
Rochester Institute of Technology  
Center for Detectors  
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Rochester, NY 14623-5604  
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## EDUCATION

Ph.D., University of California, Los Angeles, Astronomy 1995  
M.S., University of Chicago, Astronomy and Astrophysics 1991  
B.A., Northwestern University, Triple Major: Physics (Hon.), Math, Astronomy (Hon.) 1989

## HONORS AND AWARDS

*RIT College of Science Outstanding Outreach Award* May, 2012  
*NASA JWST Project Team Award* October, 2009  
*RIT Million Dollar Club* 2009  
*Wickliffe High School Achievement Hall of Fame Inductee* November, 2006  
*NYSTAR Faculty Development Award* for Establishment of an Infrared Detector Test and  
Development Laboratory at Rochester Institute of Technology November, 2005  
*NASA Space Act Award* for contributions to “4 Megapixel, High-Sensitivity Infrared Detector  
Array for Space Astronomy” June, 2004  
*AURA STScI Technology and Innovation Award* May, 2004  
*UCLA Distinction in Teaching Award* June, 1995

## EMPLOYMENT

*Professor*, Rochester Institute of Technology January, 2006 to current  
*Director*, Future Photon Initiative February, 2016 to current  
*Director*, Center for Detectors April, 2010 to current  
*Professor*, MicroSystems Engineering April, 2010 to current  
*Professor*, Astrophysics and Technology PhD September, 2008 to current  
*Professor*, Center for Imaging Science January, 2006 to current  
*Director*, Rochester Imaging Detector Laboratory January, 2006 to current  
*Consultant*, Raytheon November, 2011 to current  
*Consultant*, HST WFC3 January, 2006 to June, 2006  
*Manager*, LSST Guider August, 2006 to August, 2007  
*Associate Astronomer*, Space Telescope Science Institute January, 2004 to January, 2006  
*Detector Scientist*, Mag 30+ 2005  
*Director*, Independent Detector Testing Laboratory 2001 to January, 2006  
*Instrument Scientist*, HST WFC3 December 2004 to January, 2006  
*Detector Scientist*, SNAP January, 2004 to October, 2006  
*Detector Scientist*, JWST November, 2001 to January, 2006  
*Instrument Scientist*, JWST NIRC*am* August, 2003 to December, 2004  
*Adjunct Assistant Professor*, Johns Hopkins University May, 2000 to May, 2002  
*Assistant Astronomer*, Space Telescope Science Institute July, 1999 to January, 2004  
*Instrument Scientist*, Next Generation Space Telescope

*Lead Instrument Scientist, NEXUS*  
*Assistant Research Astronomer, UCLA, Department of Physics & Astronomy*  
October, 1996 to July, 1999

*Principal Optical Designer and Local Project Scientist, NIRSPEC/Keck*  
October, 1995, to June, 1999

*Principal Investigator, FLITECAM/SOFIA*  
July, 1997 to October, 1998

*Postdoctoral Research Fellow, UCLA, Division of Astronomy & Astrophysics,  
Department of Physics & Astronomy.*  
June, 1995 to October, 1996

*Principal Opto-mechanical Designer, MIST (Medical Imaging and Scanning Technologies)*  
November, 1994 to October, 1995

*Ph.D. candidate, UCLA, Division of Astronomy & Astrophysics, Department of Physics &  
Astronomy.*  
June, 1992 to June, 1995

*Research Assistant, UCLA, Department of Astronomy.*  
June, 1992 to May, 1994

*Research Technician, University of Chicago, Department of Astronomy and Astrophysics.*  
November, 1991 to June, 1992

*Research Assistant, University of Chicago, Department of Astronomy and Astrophysics.*  
June, 1989 to November, 1991

*Teaching Assistant, University of Chicago, Department of Astronomy and Astrophysics.*  
September, 1989 to January, 1990

*Undergraduate Researcher, Northwestern University, Department of Physics and Astronomy*  
September, 1987 to June, 1989

*Experiment Assistant, Fermilab, Batavia, Illinois.*  
June, 1987 to September, 1987

*Undergraduate Researcher, Northwestern University, Department of Physics and Astronomy.*  
September, 1986 to June, 1987

## PROFESSIONAL SOCIETIES

American Astronomical Society (AAS)  
Society of Photo-optical Instrumentation Engineers (SPIE), Senior Member

## REFEREE EXPERIENCE

Nature  
Science  
Astrophysical Journal  
Astronomical Journal  
Astronomy & Astrophysics  
Monthly Notices of the Royal Astronomical Society  
Society of Photo-Optical Instrumentation Engineers  
Journal of Quantum Electronics

## OUTREACH

Public talks at UCLA, STScI, JHU, NU, RIT and astronomy clubs ongoing  
Principal Investigator of “High School Student Explorations of Planetary Surfaces in Digital Immersive Worlds” 2008-2012  
Interviews for New York Times, USA Today, CNN, Discover, Astronomy, US News & World Report, BBC, Australian Broadcasting Network, NBC, local network affiliate stations in Los Angeles, Baltimore, Rochester, etc. ongoing  
Featured in two episodes of “The Universe” on the History Channel 2009  
Principal Investigator of “The Journey of a Photon: High School Student Involvement in Developing their Community's Understanding of Detector Science for the International Year of Astronomy / Year of Science (2009) and beyond” 2008-2010

## UNIVERSITY SERVICE

Member, RIT Faculty Honorary Degree Committee 2015-current  
Member, RIT Astronomy PhD Qualifying Exam Committee 2010-current  
Member, Kim Kolb PhD Committee 2011-2015  
Member, Christine Trombley PhD Committee 2010-2013  
Member, Chris Bailey PhD Committee 2011  
Member, Chris Shea MS Committee 2011  
Member, Kim Kolb MS Committee 2011  
Member, Rudolf Montez PhD Committee 2009-2011  
Member, RIT Astronomy Graduate Student Admissions Committee 2008-2011  
Member, RIT College of Science Faculty Evaluation and Development Committee 2006-2008  
Chair, RIT NPRL Director Search Committee 2009-2010  
Chair, RIT Faculty Search Steering Committee 2008  
Member, RIT Imaging Science Graduate Qualifying Exam Committee 2007  
Member, RIT Imaging Science Faculty Search Committee 2007  
Member, RIT Imaging Science Pre-tenure Review Committee 2007  
Member, RIT Imaging Science Graduate Student Admissions Committee 2006-2008  
Member, Imaging Science Faculty Search Committee 2006

## PROFESSIONAL SERVICE

Member, Project Blue Team	2017-current
Member, NASA COR Program Technical Interest Group	2017-current
Member, LUVOIR Optical/NIR Imager Instrument Team	2016-current
Member, LUVOIR Technology Working Group, Co-Chair	2016-current
Member, ANUBIS Team	2016-current
Member, ASTRO-1 Team	2015-current
Member, TMT ISDT for the Milky Way and Nearby Galaxies	2015-current
Member, LSST Stellar Populations Science Collaboration	2008-current
Reviewer, Science Foundation Ireland	2015
Reviewer, NASA Postdoctoral Program Review Panel	2015
Reviewer, Natural Sciences and Engineering Research Council of Canada	2015
Reviewer, NSF MSIP	2015
Reviewer, NASA Postdoctoral Program Review Panel	2014
Reviewer, NASA APRA Review Panel	2014
Reviewer, National Council for Science and Technology of Greece	2012
Member, Program Committee, SPIE Single-Photon Imaging III	2012
Reviewer, SOFIA Instrument Review Committee	2011-2012
Member, GMTNIRS Instrument Review Committee	2011
Session Chair, The central kiloparsec in galactic nuclei, Bad Honnef, Germany	2011
Session Chair, Single Photon Counting Detectors, Keck Institute for Space Studies, Pasadena, CA	2010
Reviewer, NASA Postdoctoral Program Review Panel	2010
Founder and Organizer, Quantum-Limited Detector Workshop	2009
Organizer, Detectors for Astronomy Conference, Munich, Germany	2009
Session Chair, Detectors for Astronomy Conference, Munich, Germany	2009
Session Chair, The First PANDA Symposium on Products of Astrophysical Outflows, Liajiang, China	2009
Chair, NASA PIDDP Review Sub-Panel	2009
Member, NASA, Astrophysics Suborbital Rocket Roadmap Group	2008-2009
Reviewer, Science and Technology Centers in the Former Soviet Union	various
Member, LSST Galaxies Science Definition Working Group	2008
Reviewer, NASA Spitzer Review Panel	2008
Organizer, Massive Stars: From Pop III and GRBs to the Milky Way, STScI May Symposium, Baltimore, MD, USA	2006
Reviewer, NSF Review Panels (AST, ATI, Polar Programs)	various
Session Chair, SPIE Conference	2006
Member, AURA Red Team Review of GSMT Proposal	2003
Member, NOAO Review of SPARTAN IR Camera for SOAR	2003

## PROFESSIONAL TRAINING

Project Management	September 27-28, 2000
Technical Presentations	May 9-10, 2000
Principles of Optical Systems Layout	January 25, 1994

## TOOLS

Circuit Design: HSpice, Pspice, Douglas Electronics Schematic, Mac CAD

Mechanical Design: CADKey, Ashlar Vellum

Optical Design: ZEMAX, Code V

Operating Systems: UNIX, VAX/VMS, Windows, MS DOS, Mac

Languages: IDL, FORTRAN, 80X86 Assembler, Forth, 68HC11 Assembler, BASIC, Pascal, C, IRAF

Observatories: HST, Chandra, Spitzer, KPNO, CTIO, Gemini, UKIRT, Kuiper Airborne Observatory, NASA Infrared Telescope Facility, Lick Observatory, Keck Observatory

## CONSULTING

Boldly Go, Project Blue	2017 to current
Boldly Go, ASTRO-1	2015 to current
Raytheon	November, 2011 to December, 2011
LSST Guider Management	November, 2007 to February, 2008
HST/WFC3 Detector Flight Validation	January, 2006 to June, 2006

## STUDENTS ADVISED

1. Utkarsh Sharma	PhD	JHU	2003
2. Stella Jang	PhD	JHU	2003
3. Lance Simms	PhD	Stanford University	2005
4. Nicholas Cox	Co-op	RIT	2006
5. Young Sam Yu	Independent Study	RIT	2008
6. David Saroff	Independent Study	RIT	2009
7. Jorge Rangel	MS	RIT	2009
8. Daniel Pontillo	PhD	RIT	2009
9. Linpeng Cheng	MS (co-advisor)	RIT	2008-2009
10. Kim Manser	Senior Project	RIT	2008-2009
11. Tom Praderio	Co-op	RIT	2009
12. Rudolfo Montez	PhD	RIT	2010
13. Maksim Bobrov	Student Researcher	RIT	2009-2010
14. Gustavo Rahmer	Independent Study, MS (advisor)	RIT	2009-2010
15. John Frye	Student Researcher	RIT	2009-2011
16. Matt Simpson	Independent Study, Intern	RIT	2009-2011
17. Chris Maloney	Co-op, Student Researcher, Senior Project	RIT	2009-2011
18. Christine Trombley	PhD (advisor)	RIT	2009-2011
19. John Breese	Co-op	RIT	2010-2011
20. Brian Glod	Co-op, MS (advisor)	RIT	2010-2011
21. Christopher Shea	MS (co-advisor)	RIT	2009-2011
22. Kim Kolb	MS (advisor)	RIT	2010-2011
23. Christopher G. Bailey	PhD (on committee)	RIT	2011
24. Yuanhao Zhang	MS (advisor)	RIT	2012
25. Kim Kolb	PhD	RIT	2011-2015
26. Jam Sadiq	PhD	RIT	2014-2015

27. Joseph DiPassio	Co-op	RIT	2015
28. Neil Guerten	Co-op	RIT	2015
29. Aravind Warrior	Student Researcher	RIT	2015
30. Gilford Fernandes	Student Researcher	RIT	2015
31. Kevin Moser	Student Researcher	RIT	2016

### **POST-DOCTORAL SCHOLARS ADVISED**

1. Sungsoo Kim Associate Professor (Kyung-Hee University)
2. Ben Davies Postdoc (University of Leeds), Assistant Research Scientist (RIT), RAS Fellow (University of Cambridge)
3. Qingfeng Zhu Assistant Professor (University of Science and Technology of China)
4. Jingjing Zhang Thermo-CIDTEC
5. Lucy Hadfield Secondary School Teacher (Yorkshire, UK)
6. Maria Messineo Post-doc (ESA/ESTEC), Post-doc (Max Planck Institute for Radio Astronomy, Bonn)

### **STAFF SUPERVISED**

1. Robert Barkhauser (Engineer), JHU
2. Sito Balleza (Engineer), STScI
3. Gretchen Greene (Engineer), STScI
4. Bernard Rauscher (Assistant Scientist), STScI
5. Michael Regan (Assistant Astronomer), STScI
6. Eddie Bergeron (Data Analyst), STScI
7. Ernie Morse (Data Analyst), STScI
8. Zoltan Makai (Data Analyst), RIDL
9. Stephanie Sublett (Technician), RIDL
10. Alisea Evans (Technician Assistant), RIDL
11. Don Stauffer (Lab Engineer), RIDL
12. Joong Lee (Lab Engineer), RIDL
13. Susan Cook (RIDL Group Assistant), RIDL
14. Tiffany Magri (Assistant), RIDL
15. Alan Johnson (Coordinator of Administrative Operations), RIDL
16. Katie Palermo (Graphic Designer), RIDL
17. Dan Kerr (Technician), RIDL
18. Heather Andersen (Assistant), RIDL
19. Anthony Ethangatta (Student Group Assistant), RIDL
20. John Coughlian (Software Administrator), RIDL
21. Brian Ashe (Lab Engineer), RIDL
22. Brandon Hanold (Lab Engineer), RIDL
23. Tom Montagiano (Lab Engineer), RIDL
24. Hitesh Gadi (Web Site Designer), RIDL
25. Katelyn Pease (Assistant), CfD
26. Morgan DeLuca (Assistant), CfD
27. Adena Thomson (Executive Assistant), CfD
28. Heather Baxter (Assistant), CfD
29. Trisha Basset (Assistant), CfD
30. Caitlin Mucenski (Graphic Designer), CfD

31. Matt Davis (Lab Assistant), CfD
32. Allison Conte (Graphic Designer), CfD
33. Elishia Ortiz (Assistant), CfD
34. Evan Jorgensen (Lab Assistant), CfD
35. Mike Every (Lab Assistant), CfD
36. Anastasia Rzhevskaya (Assistant), CfD
37. Jonathan Zimmermann (Lab Assistant), CfD
38. John Leavitt (Industrial Designer), CfD
39. Grace Walker (Assistant), CfD
40. Nicole Lantonio (Assistant), CfD
41. Kirk Winans (Executive Assistant), CfD
42. Kenneth Bean (Lab Assistant), CfD
43. Neil Guertin (Lab Assistant), CfD
44. Aye Chan (Executive Assistant), CfD
45. John Hatakeyama (Lab Assistant), CfD

## TEACHING

20161	Multiwavelength Astronomical Imaging	1051- 446
	Astronomical Observational Techniques and Instrumentation	1060- 711
20151	Astronomical Observational Techniques and Instrumentation	1060-613
20142	Research and Thesis	1051-890
	Research and Thesis	1060-890
20141	Research and Thesis	1051-890
	Research and Thesis	1060-890
	Research and Thesis	1060-790
	Multiwavelength Astrophysics	1051-461
	Astronomical Observational Techniques and Instrumentation	1060-613
20138	Research and Thesis	1051-890
	Research and Thesis	1060-890
	Research and Thesis	1060-790
20135	Research and Thesis	1051-890
20131	Research and Thesis	1060-790
	Research and Thesis	1051-790
	Research and Thesis	1051-890
	Multiwavelength Astrophysics	1051-461
	Astronomical Observational Techniques and Instrumentation	1060-613
20123	Research and Thesis	1051-890
	Multiwavelength Astrophysics	1051-446
	Astronomical Observational Techniques and Instrumentation	1060-711
20122	Research and Thesis	1060-890
	Research and Thesis	1051-890
20121	Research and Thesis	1060-890
	Research and Thesis	1051-890
20113	Research and Thesis	1051-890
	Multiwavelength Astrophysics	1051-446
	Astronomical Observational Techniques and Instrumentation	1060-711
20103	Research and Thesis	1060-890
	Research and Thesis	1051-890
	Senior Design Project II (advisor)	0305-691
20102	Research and Thesis	1060-890
	Research and Thesis	1051-890
	Senior Design Project II (advisor)	0305-691
20101	Astronomical Observational Techniques and Instrumentation	1060-711
	Research and Thesis	1051-446
	Research and Thesis	1051-890
20093	Astronomical Observational Techniques and Instrumentation	1060-711
	Research and Thesis	1051-446
20092	Research and Thesis	1060-890
	Independent Study	1051-799
	Independent Study	1060-799

	Master's Project	1051-840
20083	Detectors	1051-465
	Senior Design Project II (advisor)	0305-691
20073	University Physics	1017-313
	Independent Study	1051-799
20071	Multiwavelength Astrophysics	1051-446
		1051-753

## RESEARCH, OUTREACH, AND EDUCATION FUNDING HISTORY

Year	Description	Sponsor	Amount
		Total Funding	17,972,207
2015-2020	The Future Photon Initiative	RIT	1,000,000
2015-2018	A Photon Counting Imaging Detector for NASA Exoplanet Missions	NASA/APRA	133,000
2015-2018	Phase II: New Infrared Detectors for Astrophysics	NSF/ATI	1,983,212
2013-2014	Acquisition of Metal Organic Vapor Phase Epitaxy (MOVPE) Reactor for Nanostructured Materials Development (Senior Personnel)	NSF/MRI	760,671
2013-2015	A Zero Noise Detector for the TMT: Next Generation Imaging Detectors for Near- and Mid-IR Wavelength Telescopes (Output 2)	Moore Foundation	282,988
2012-2015	A New VIS/IR Detector for NASA Missions	NASA/APRA	1,115,106
2012-2013	The Mass Loss of Red Supergiants	NASA/SOFIA	8,000
2012-2015	New Infrared Detectors for Astrophysics	NSF/ATI	1,490,897
2012	Clumping in OB-star winds	NASA/Herschel	\$11,453
2011-2013	Detector Virtual Workshop	NSF	20,000
2011-2012	High Mass Stellar IMF	NASA/GRSP	30,000
2010-2012	High School Student Explorations of Planetary Surfaces in Digital Immersive Worlds	NASA/EPO	44,522
2010-2012	A Photon-Counting Detector for Exoplanet Missions	NASA/TDEM	783,981
2010-2011	X-Ray Observations of Mercer 81	CXC/Chandra	35,768
2010	RIT Seed Grant for NSF STC Proposal Development	RIT	15,000
2009-2011	A NICMOS survey of newly-discovered young massive clusters (PI Davies)	STScI/HST	180,448
2009-2010	LSST Guider Testing	SLAC	23,187
2008-2012	A Zero Noise Detector for the TMT: Next Generation Imaging Detectors for Near- and Mid-IR Wavelength Telescopes	Moore Foundation	2,839,191
2008-2011	A LIDAR Imaging Detector for NASA Planetary Missions	NASA/PIDDP	546,712

<b>Year</b>	<b>Description</b>	<b>Sponsor</b>	<b>Amount</b>
2010	Sandia National Laboratory projects	Sandia National Laboratory	49,833
2009			23,000
2008			22,282
2008	RIT Seed Grant for NSF STC Proposal Development	RIT	150,000
2008-2009	MRI: Acquisition of two special-purpose computers for simulation of the galactic center environment (PI Merritt)	NSF/MRI	108,232
2008	The Journey of a Photon: High School Student Involvement in Developing their Community's Understanding of Detector Science for the International Year of Astronomy / Year of Science (2009) and beyond	NASA	44,987
2007-2011	A Radiation Tolerant Detector for NASA Planetary Missions	NASA/PIDDP	807,681
2007-2010	A Low Noise CMOS Detector for NASA Space Missions	NASA/APRA	847,000
2007	The pre-supernova mass-loss behavior of Red Supergiants (PI Davies)	SSC/JPL	80,801
2007	Management of LSST Guider project	SLAC	31,240
2006	Massive Star Clusters	SSC/JPL	30,445
2007	Si PIN Demonstration at a Telescope	Stanford	53,880
2006		SLAC	28,770
2006	Mid-Infrared Spectroscopy of the Most Massive Stars	SSC/JPL	21,812
2006	JDEM Detector Testing Project	NASA	27,000
2006	Startup funding	RIT/FIC	243,000
2006	HST/WFC3 Detector Flight Validation	STScI	21,060
2005-2010	The Most Massive Stars	NASA/LTSA	795,378
2005	The First Astronomical Use of Silicon PIN Detectors	STScI/DDRF	28,769
2005-2008	Faculty Development Award for Establishment of an Infrared Detector Test and Development Laboratory at Rochester Institute of Technology	NYSTAR	727,900
2006	SNAP Detector Testing Project	LBNL	15,000
2006			21,000
2005			27,000
2004			22,000
2005	LSST CMOS Detector Testing Project	SLAC	25,000
2004-2006		UC Davis/NSF	125,879
2004	LSST CMOS Detector Testing Project	SLAC	78,000
2003	JWST NIRSpec detector testing project	NASA	73,000

<b>Year</b>	<b>Description</b>	<b>Sponsor</b>	<b>Amount</b>
2003	Comparative Characterization of NIR Detectors for NGST	NASA	273,000
2001-2003			992,122
2000-2003	Establishment of the Independent Detector Testing Laboratory	STScI/DDRF #82254	300,000
2000-2002		JHU (in kind)	300,000
2001	High resolution near-infrared spectroscopy of the Galactic Center	STScI/DDRF #82247	67,000
2000	Data Analysis	STScI/DDRF #82230	60,000
1997-1998	Compact Young Clusters and the r-2 Cusp near the Galactic Center	STScI/HST	146,000

## TALKS

1. Invited Talk, Hartford, CT, The Hartford Club, “Transformative technology for exploring Inner Space and Outer Space” (1/18)
2. Invited Talk, San Francisco, CA, RIT West Networking Event, “Are we alone in the universe?” (1/17)
3. Invited Talk, Rochester, NY, RIT, IEEE Rochester Photonics Society talk at RIT (11/15)
4. Invited Colloquium, Evanston, IL, Northwestern University, CIERA Interdisciplinary Colloquium, “Single-photon Array Detectors” (5/12)
5. Invited Review, Bad Honnef, Germany, The central kiloparsec in galactic nuclei (8/11), “Massive star formation in nuclei of galaxies”
6. Invited Talk, San Diego, CA, “A photon-counting detector for exoplanet missions,” Techniques and Instrumentation for Detection of Exoplanets V (8/11)
7. Invited Talk, San Diego, CA, Single-Photon Imaging II (8/11)
8. Invited Talk, Braunschweig, Germany, Single Photon Workshop 2011 (6/11)
9. Invited Colloquium, Pasadena, CA, JPL Astrophysics Colloquium (12/10), “Next Generation Imaging Detectors for Inner, Middle, and Outer Space”
10. Invited Talk, Rochester, NY, Frontiers in Optics 2010 (10/10), “Future Detectors for Astrophotonics”
11. Invited Talk, Arlington, VA, Technology Seminar Series at the NRO (4/10), “Single Photon Counting Array Imaging Detectors for Defense Applications”
12. Invited Colloquium, Boston University, Boston, MA (3/10), “Massive Stars”
13. Invited Talk, Pasadena, CA, Single Photon Counting Detectors, (1/10), “Single Photon Imaging Array Detectors”
14. Invited Review, Sydney, Australia, The Inaugural Sydney International Workshop on Synergies in Astronomy and Medicine, (12/09), “Probing Inner Space and Outer Space with Quantum-Limited Detectors”
15. Invited Talk, Rochester, NY, Society for Imaging Science and Technology meeting (11/09)
16. Invited Colloquium, Leeds, UK, (11/09), “Massive Star Clusters”
17. Invited Briefing, Washington, DC, (11/09), “Low Light Level, High Dynamic Range, 3D Imaging Technologies”
18. Invited Briefing, El Segundo, CA, (10/09), “Detector Technologies in the Rochester Imaging Detector Laboratory”
19. Invited Review, Munich, Germany, Detectors for Astronomy, (10/09), “Summary of Quantum-Limited Imaging Detectors Workshop”
20. Invited Talk, Munich, Germany, Detectors for Astronomy, (10/09), “A Zero Read Noise Detector for the TMT”
21. Invited Talk, RIT, Quantum-Limited Imaging Detectors Workshop, (4/09), “Why Detectors are Important”
22. Invited Review, Kauia, Hawaii, IAU250: Massive Stars as Cosmic Engines (12/07), “Massive Young Clusters”
23. Invited Review, Ringberg Castle, Germany, GC2007: Celebrating 15 years of precision astronomy in the Galactic Center - Hot topics and observational challenges (06/07), “The Initial Mass Function in the Galactic Center”
24. Invited Symposium, University of Rochester, Colloquium, (09/06), “Seeing into the Dark Side”.

25. Invited Review, STScI May Symposium (05/06), “Massive Star Formation in the Galactic Center”
26. Invited Talk, Optical Society of America, Rochester: Center for Optoelectronics and Imaging (12/05), “Focal Plane Array Testing and Applications for Astronomy”
27. Invited Colloquium, RIT (04/05), “An Upper Limit to the Masses of Stars”
28. Invited Colloquium, University of Michigan, Colloquium (04/05), “An Upper Limit to the Masses of Stars”
29. Invited Colloquium, STScI (01/05), “An Upper Limit to the Masses of Stars”
30. Invited Talk, Montreal: Massive Stars in Interacting Binaries (08/04), “Stripping and Merging of Hot young Stars in the Galactic Center”
31. Invited Talk, Sienna, Italy: IMF at 50 (05/04), The Stellar Initial Mass Function in the Galactic Center”
32. Invited Colloquium, University of Delaware, Colloquium (04/04), “Massive Stars and the Stellar Initial Mass Function in the Galactic Center”
33. Invited Colloquium, University of Wisconsin, Colloquium (03/04), “Massive Stars and the Stellar Initial Mass Function in the Galactic Center”
34. Invited Talk, Greenbank, WV: GC at 30 (03/04), “Massive Stars and the Stellar Initial Mass Function in the Galactic Center”
35. Invited Colloquium, Cornell University, Colloquium (02/04), “Massive Stars and the Stellar Initial Mass Function in the Galactic Center”
36. Invited Colloquium, Brookhaven National Laboratory: LSST Camera Meeting (02/04), “The Status of CMOS Detectors for LSST”
37. Invited Colloquium, University of Pennsylvania, Colloquium (01/04), “Massive Stars and the Stellar Initial Mass Function in the Galactic Center”
38. Invited Review, Cancun, Mexico, The Formation and Evolution of Massive Star Clusters (00/03), “Young Massive Clusters in the Galactic Center”
39. Invited Colloquium, Brookhaven National Laboratory (11/03), “Focal Plane Array Testing and Applications for Astronomy”
40. Contributed Talk, San Diego: SPIE (08/03), “Independent Testing of JWST Detector Prototypes”.
41. Contributed Talk, Seattle: AAS201 (01/03), “The Independent Detector Testing Laboratory and the JWST Detector Program”
42. Invited Review, Ringberg: Nuclei of Galaxies (11/02), “The IMF in the Galactic Center”.
43. Contributed Talk, Kona: Galactic Center Workshop (11/02), “Massive Stars and the Creation of our Galactic Center”
44. Contributed Talk, Kona: SPIE (08/02), “The Independent Detector Testing Laboratory and the NGST Detector Program”
45. Invited Talk, Lanzarote: IAU212 (07/02), “Massive Stars and The Creation of our Galactic Center”
46. Invited Colloquium, University of Massachusetts (00/01), “Massive Stars in the Galactic Center”
47. Invited Colloquium, MIT (00/01), “Massive Stars in the Galactic Center”.
48. Invited Colloquium, JHU Physics and Astronomy CAS Seminar, Colloquium (02/01), “The NGST Detector Program at JHU/STScI”
49. Invited Colloquium, Baltimore-Washington Starburst Series, Colloquium (00/01), “Star Formation in the Galactic Center”

50. Public Talk, JHU Continuing Education Program (00/00), "Journey to the Center of the Galaxy"
51. Invited Review, Heidelberg: Modes of Star Formation and the Origin of Field Star Populations (12/00), "Starburst Clusters in Galactic Nuclei".
52. Invited Colloquium, LASP, GSFC, Colloquium (00/00), "The IMF in the Galactic Center"
53. Invited Talk, Munich: Starburst Galaxies Near and Far (11/00), "The IMF in the Galactic Center"
54. Invited talk, American Museum of Natural History (00/00), "Stellar-Collisions in the Galactic Center".
55. Public talk, University of Maryland, Baltimore County, Colloquium (00/00), "Journey to the Center of the Galaxy".
56. Review, Munich: SPIE (03/00), "NIRSPEC Observations of the Galactic Center".
57. Invited talk, Northwestern University (00/00), "Journey to the Center of the Galaxy".
58. Review, Atlanta: AAS195 (01/00), "Keck/NIRSPEC Spectroscopy of Stars Near Sgr A\*".
59. Invited Colloquium, Harvard University, Colloquium (00/99), "Massive Stars Near the Galactic Center"
60. Invited Colloquium, Johns Hopkins University, Colloquium (00/99), "Massive Stars Near the Galactic Center"
61. Invited Colloquium, STScI (00/98), "Massive Stars Near the Galactic Center".
62. Invited Colloquium, University of Florida (00/98), "Massive Stars Near the Galactic Center"
63. Invited Talk, The Central Parsecs: Galactic Center Workshop '98 (09/98), "HST/NICMOS Imaging of the Quintuplet and Arches Clusters"
64. Public Talk, Santa Monica Planetarium (00/98), "Massive Stars Near the Galactic Center"
65. Public Talk, UCLA Extension Lecture Series (00/98), "Massive Stars Near the Galactic Center"
66. Contributed Talk, STScI May Symposium (05/98), "The Pistol Star"
67. Invited Colloquium, University of Minnesota, Colloquium (00/98), "Massive Stars Near the Galactic Center"
68. Invited Colloquium, UCLA, Colloquium (00/98), "Massive Stars Near the Galactic Center"
69. Invited Colloquium, Ohio State University, Colloquium (00/98), "Massive Stars Near the Galactic Center"
70. Contributed Talk, Kyoto: IAU184 (08/97), "Super-star clusters in the Galactic Center as revealed by HST-NICMOS."

### **NEWS ARTICLES (SELECTED ITEMS)**

1. United Press International, January 9, 2006, "Astronomers find star cluster in Milky Way"
2. New Scientist, August 9, 2007, "Largest swarm of giant stars is a 'supernova factory'"
3. New Scientist, January 10, 2006, "Supergiant supernova"
4. BBC News, March 9, 2005, "Upper limit placed on star growth"
5. New York Times, March 10, 2005, "Stars on Diet: Weight Is Limited to 150 Suns, Researchers Find"
6. USA Today, March 10, 2005, "Hubble shows stars have weight limit"
7. Astronomy Magazine, March 10, 2005, "How hefty can a star get?"
8. Sky & Telescope, March 10, 2005, "The Most Massive Stars"
9. Science News, March 12, 2005, "Weighing In on a Star: A stellar size limit"
10. Science News for Kids, March 16, 2005, "No Fat Stars"

11. New York Times, October 8, 1997, “At the Core of the Milky Way, The Brightest Star Ever Seen,” Front Page
12. US News and World Report, October 12, 1997, “A Really, Really Big Star - An astronomer makes a humongous discovery. Will it hold up?”

## PRESS RELEASES

	Date	Title	Source
1	Nov. 20, 2015	Next Generation infrared detectors win NSF Funding RIT Raytheon Vision Systems collaboration could advance astronomy	RIT News Release
2	Nov. 18, 2013	Shedding light on Earth-like planets RIT advances imaging detector technologies	RIT News Release
3	April 22, 2013	NASA awards RIT \$1.1 million to develop infrared detectors for space missions	RIT News Release
4	July 26, 2012	RIT Leads Development of Next-generation Infrared Detectors	RIT News Release
5	November 2, 2011	Mysterious Absorption Lines Could Illuminate 90-year Puzzle	RIT News Release
6	February 16, 2011	RIT Center for Detectors Advances Detector Technology	RIT News Release
7	July 22, 2010	Detector Technology Could Help NASA Find Earth-like Exoplanets	RIT News Release
8	Feb. 27, 2009	RIT Presents: The Next Generation of Imaging Detectors	RIT News Release
9	October 21, 2008	Moore Foundation Awards RIT \$2.8 Million to Develop ‘Noiseless’ Detector”	RIT News Release
10	May 28, 2008	Ghostly Ring	NASA HQ
11	May 22, 2008	Light research used to plot celestial bodies ‘Super roadmaps’ will give planetary details	RIT News & Events
12	August 17, 2007	New Imaging Detectors Could Take Snapshots from Deep Space	RIT News Release
13	November 16, 2006	RIT-led initiative to enhance view of space	RIT News & Events
14	August 18, 2006	Stellar Pinwheels at Our Galaxy's Core	NSF
15	January 27, 2006	Exploding stars discovered	RIT News & Events
16	January 9, 2006	Mystery Solved: High-Energy Fireworks Linked to Massive Star Cluster	STScI
17	March 9, 2005	Hubble Weighs in on the Heaviest Stars in the Galaxy	STScI
18	September 16, 1999	Hubble Spies Giant Star Clusters Near Galactic Center	STScI
19	October 8, 1997	Hubble Identifies What May Be the Most Luminous Star Known	STScI

## **RADIO & TELEVISION**

1. WROC News Channel 8, Rochester, NY, April 13, 2016  
<http://www.rochesterfirst.com/news/local-news/technology-for-starshot-program-could-be-developed-in-rochester>
2. WXXI AM 1370 News, Rochester, NY, August 4, 2014  
<http://wxxinews.org/post/connections-science-roundtable-2>  
<http://cpa.ds.npr.org/wxxi/audio/2014/08/Connections-8-4-14Hr1.mp3>
3. History Channel, The Universe, “The Search for Cosmic Clusters,” September 29, 2009  
<http://www.youtube.com/watch?v=5i2wqiTNkHc>
4. History Channel, The Universe, “Pulsars and Quasars,” October 20, 2009
5. Channel 8/31 News (CBS/Fox), Rochester, NY, September 4, 2009  
<http://www.youtube.com/watch?v=k1CXEDaRow4>
6. Channel 10 News, Rochester, NY, May, 2009  
<http://ridl.cis.rit.edu/products/talks/mapquest%20mars%20WMV.wmv>
7. WJZ TV News, Baltimore, MD, March, 2005
8. NPR, March 10, 2005, “Limits on Star Size”  
<http://www.npr.org/templates/story/story.php?storyId=4529313>

## REFEREED PAPERS

1. Kolb, K., **Figer, D.**, Hanold, B., Lee, J. 2016, *Radiation tolerance of a Geiger-mode avalanche photodiode imaging array*, Journal of Astronomical Telescopes, Instruments, and Systems
2. de la Fuente, D., Najarro, F., Borissova, J., Ramírez Alegría, S., Hanson, M. M., Trombley, C., **Figer, D. F.**, Davies, B., Garcia, M., Kurtev, R., Urbaneja, M. A., Smith, L. C., Lucas, P. W., Herrero, A. 2016, *Probing the Dragonfish star-forming complex: the ionizing population of the young massive cluster Mercer 30*, Astronomy & Astrophysics, 589, A69
3. Messineo, M., Zhu, Q., Menten, K. M., Ivanov, V. D., **Figer, D. F.**, Kudritzki, R. P., Chen, R. 2016, *Red supergiants in the inner galaxy: Stellar properties*, Astrophysical Journal, 836, 65
4. Messineo, M., Zhu, Q., Menten, K. M., Ivanov, V. D., **Figer, D. F.**, Kudritzki, P. R., Chen, R. 2016, *Discovery of an extraordinary number of red supergiants in the inner galaxy*, The Astrophysical Journal, 822, L5
5. Hanold, B., **Figer, D.**, Lee, J., Kolb, K., Marcuson, I., Corrales, E., Getty, J., Mears, L. 2015, *Large format MBE HgCdTe on silicon detector development for astronomy*, SPIE Proceedings
6. Messineo, M., Clark, J., **Figer, D.**, Kudritzki, R. P., Najarro, F., Rich, R., Menten, K., Ivanov, V., Valenti, E., Trompley, C., Chen, C.-H., & Davies, B. 2015, *Massive stars in the W33 giant molecular complex*, The Astrophysical Journal, 805, 110
7. de la Fuente, D., Najarro, F., Trombley, C., Davies, B., & **Figer, D. F.** 2015, *First detections of FS CMA stars in clusters. Evolutionary state as constrained by coeval massive stars*, Astronomy & Astrophysics, 575, A10
8. **Figer, D. F.** 2014, *Astrophysics: Monster star found hiding in plain sight*, Nature, 515, 42
9. Messineo, M., Qingfeng, Z., Ivanov, V. D., **Figer, D. F.**, Davies, B., Menten, K. M., Kudritzki, R. P., & Chen, R. C.-H. 2014, *Near-infrared spectroscopy of candidate red supergiant stars in clusters*, Astronomy & Astrophysics, 571, A43
10. Messineo, M., Menten, K. M., **Figer, D. F.**, Davies, B., Clark, J. S., Ivanov, V. D., Kudritzki, R. P., Rich, R. M., MacKenty, J. W., & Trombley, C. 2014, *Massive stars in the giant molecular cloud G23.3-0.3 and W41*, Astronomy & Astrophysics, 569, A20
11. Richards, E., Lang, C., Trombley, C., & **Figer, D.** 2012, *Multiwavelength Observations of Massive Stellar Cluster Candidates in the Galaxy*, The Astronomical Journal, 144, 3
12. Davies, B., de La Fuente, D., Najarro, F., Hinton, J. A., Trombley, C., **Figer, D. F.**, & Puga, E. 2012, *A newly discovered young massive star cluster at the far end of the Galactic Bar*, Monthly Notices of the Royal Astronomical Society, 419, 1860
13. Davies, B., et al. 2012, *The G305 star-forming complex: the central star clusters Danks 1 and Danks 2*, Monthly Notices of the Royal Astronomical Society, 419, 1871
14. Geballe, T. R., Najarro, F., **Figer, D. F.**, Schlegelmilch, B. W., & de la Fuente, D. 2011, *Infrared Diffuse Interstellar Bands in the Galactic Centre*, Nature, 479, 200

15. Evans, C. J., Davies, B., Kudritzki, R. P., Puech, M., Yang, Y., Cuby, J.-G., **Figer, D. F.**, Lehnert, M. D., Morris, S. L., & Rousset, G. 2011, *Stellar metallicities beyond the Local Group: the potential of J-band spectroscopy with extremely large telescopes*, *Astronomy & Astrophysics*, 527, A50
16. Kim, S. S., Saitoh, T. R., Jeon, M., **Figer, D. F.**, Merritt, D., & Wada, K. 2011, “*Nuclear Star-Forming Ring of the Milky Way: Simulations*,” *Astrophysical Journal Letters*, 735, 11
17. Messineo, M., Davies, B., **Figer, D. F.**, Kudritzki, R. P., Valenti, E., Trombly, C., Najarro, F., & Rich, R. M. 2011, *Massive Stars in the Cl 1813-178 Cluster. An Episode of Massive Star Formation in the W33 Complex*, *Astrophysical Journal*, 733, 41
18. Davies, B., Kudritzki, R. P., & **Figer, D. F.** 2010, *The potential of red supergiants as extragalactic abundance probes at low spectral resolution*, *Monthly Notices of the Royal Astronomical Society*, 407, 1203
19. Puga, E., Marin-Franch, A., Najarro, F., Lenorzer, A., Herrero, A., Acosta, J., Chavarría, L., **Figer, D.**, & Ramirez, S. 2010, *Near-infrared spectroscopy in NGC 7538*, *Astronomy & Astrophysics*, 517, 2
20. Davies, B., **Figer, D. F.**, Kudritzki, R. P., & Trombly, C. 2009, *The progenitor mass for the magnetar SGR1900+14*, *Astrophysical Journal*, 707, 844
21. Messineo, M., **Figer, D. F.**, Davies, B., Kudritzki, R. P., Rich, R. M., MacKenty, J., & Trombly, C. 2009, *HST/NICMOS observations of the GLIMPSE9 stellar cluster*, *Astrophysical Journal*, 708, 1241
22. Martin-Franch, A., Herrero, A., Lenorzer, A., Najarro, F., Ramirez, S., Font-Ribera1, A., & **Figer, D.** 2009, *The stellar population of the star forming region G61.48+0.09*, *Astronomy & Astrophysics*, 502, 559
23. Zhu, Q., Davies, B., **Figer, D.**, & Trombly, C. 2009, *A Near-Infrared Study of the Stellar Cluster: [DBS2003] 45*, *Astrophysical Journal*, 702, 929
24. Clark, J. S., Negueruela, I., Davies, B., Larionov, V. M., Ritchie, B. W., **Figer, D. F.**, Messineo, M., Crowther, P. A., & Arkharov, A. 2009, *A Third Red Supergiant Rich Cluster in the Scutum-Crux Arm*, *Astronomy & Astrophysics*, 498, 109
25. Davies, B., Origlia, L., Kudritzki, R. P., **Figer, D. F.**, Rich, R. M., Najarro, F., Negueruela, I., & Clark, J. S. 2009, *Chemical abundance patterns in the inner Galaxy: the Scutum Red Supergiant Clusters*, *Astrophysical Journal*, 696, 2014
26. Messineo, M., Davies, B., Ivanov, V. D., **Figer, D. F.**, Schuller, F., Habing, H. J., Menten, K. M., & Petr-Gotzens, M. G. 2009, *Near-infrared spectra of Galactic stellar clusters detected on Spitzer/GLIMPSE images*, *Astrophysical Journal*, 697, 701
27. Davies, B., Origlia, L., Kudritzki, R. P., **Figer, D. F.**, Rich, R. M., & Najarro, F. 2009, *The Chemical Abundances in the Galactic Centre from the Atmospheres of Red Supergiants*, *Astrophysical Journal*, 694, 46
28. Najarro, F., **Figer, D. F.**, Hillier, D. J., Geballe, T. R., & Kudritzki, R. P. 2009, *Metallicity in the Galactic Center: The Quintuplet cluster*, *Astrophysical Journal*, 691, 1816
29. Messineo, M., **Figer, D. F.**, Davies, B., Rich, R. M., Valenti, E., & Kudritzki, R. P. 2008, *Discovery of a young massive stellar cluster near HESS J1813-178*, *Astrophysical Journal*, 683, L155

30. Wachter, S., Ramirez-Ruiz, E. Dwarkadas, V. V., Kouveliotou, C., Granot, J., Patel, S. K. & **Figer, D. F.** 2008, *Detection of an Infrared Ring around the magnetar SGR1900+14*, Nature, 453, 626
31. Zhu, Q., Kudritzki, R. P., **Figer, D. F.**, Najarro, F., & Merritt, D. 2008, *Radial Velocities of Stars in the Galactic Center*, Astrophysical Journal, 681, 1254
32. Davies, B., **Figer, D. F.**, Law, C. J., Kudritzki, R. P., Najarro, F., Herrero, A., & MacKenty, J. 2007, *The cool supergiant population of the massive young star cluster RSGC1*, Astrophysical Journal, 676, 1016
33. Davies, B., **Figer, D. F.**, Kudritzki, R. P., MacKenty, J., Najarro, F., & Herrero, A. 2007, *A massive cluster of Red Supergiants at the base of the Scutum-Crux arm*, Astrophysical Journal, 671, 781
34. Wachter, S., Kouveliotou, C., Patel, S., **Figer, D. F.**, & Woods, P. 2007, *Spitzer Space Telescope Observations of SGR and AXP Environments*, Astrophysics and Space Science, Volume 308, Issue 1-4, p. 67
35. Kim, S. S., **Figer, D. F.**, Kudritzki, R. P., & Najarro, F. N. 2006, *The Arches Cluster Mass Function*, Astrophysical Journal Letters, 653, L113
36. Tuthill, P., Monnier, J., Tanner, A., **Figer, D.**, Ghez, A., & Danchi, W. 2006, *Pinwheels in the Quintuplet Cluster*, Science, 313, 935
37. **Figer D. F.**, MacKenty, J. W., Robberto, M., Smith, K., Najarro, F., & Kudritzki R. P. 2006, *Discovery of an Extraordinarily Massive Young Stellar Cluster*, ApJ, 643, 1166
38. Tanner, A., **Figer, D. F.**, Najarro, F., Kudritzki, R. P., Gilmore, D., Morris, M., Becklin, E. E., McLean, I. S., Gilbert, A. M., Graham, J. R., Larkin, J. E., Levenson, N. A., & Teplitz, H. I. 2006, *High Spectral Resolution Observations of the Massive Stars in the Galactic Center*, Astrophysical Journal, 641, 891
39. Kim S. S., **Figer, D. F.**, Lee, M. G., & Oh, S. 2005, *Theoretical Isochrones with Extinction in the K Band*, PASP, 117, 445
40. **Figer, D. F.**, Najarro, F., Geballe, T. R., Blum, R. D., & Kudritzki, R. P. 2005, *Massive Stars in the SGR 1806-20 Cluster*, Astrophysical Journal Letters, 622, L49
41. **Figer, D. F.** 2005, *An upper limit to the masses of stars*, Nature, 34, 192
42. Najarro, F., **Figer, D. F.**, Hillier, D. J., & Kudritzki, R. P. 2004, *Metallicity in the Galactic Center: The Arches cluster*, Astrophysical Journal Letters, 611, L105
43. **Figer, D. F.**, Najarro, F., & Kudritzki, R. P. 2004, *The Double-lined Spectrum of LBV 1806-20*, Astrophysical Journal Letters, 610, L109
44. Kim S.S., Morris, M., & **Figer, D.F.** 2004, *Dynamical Friction on Galactic Center Star Clusters with a Central Intermediate-Mass Black Hole*, Astrophysical Journal, 607, L123
45. **Figer, D. F.**, Rich, R. M., Kim, S. S., Morris, M., & Serabyn, E. 2004, *An Extended Star Formation History for the Galactic Center from Hubble Space Telescope/NICMOS Observations*, Astrophysical Journal, 601, 319
46. **Figer, D. F.**, Gilmore, D., Kim, S. S., Morris, M., Becklin, E. E., McLean, I. S., Gilbert, A. M., Graham, J. R., Larkin, J. E., Levenson, N. A., & Teplitz, H. I. 2003, *High Precision Stellar Radial Velocities in the Galactic Center*, Astrophysical Journal, 599, 1139

47. **Figer, D. F.**, Najarro, F., Gilmore, D., Morris, M., Kim, S. S., Serabyn, E., McLean, I. S., Gilbert, A. M., Graham, J. R., Larkin, J. E., Levenson, N. A., & Teplitz, H. I. 2002, *Massive Stars in the Arches Cluster*, *Astrophysical Journal*, 581, 258
48. Stolte, A., Grebel, E. K., Brandner, W., & **Figer, D. F.** 2002, *The Mass Function of the Arches Cluster from Gemini Adaptive Optics Data*, *Astronomy & Astrophysics*, 394, 459
49. Roe, H. G., Graham, J. R., McLean, I. S., de Pater, I., Becklin, E. E., **Figer, D. F.**, Gilbert, A. M., Larkin, J. E., Levenson, N. A., Teplitz, H. I., & Wilcox, M. K. 2001, *The Altitude of an Infrared Bright Cloud Feature on Neptune from Near-infrared Spectroscopy*, *Astronomical Journal*, 122, 1023
50. Carson, J. E., Larkin, J. E., McLean, I. S., Graham, J. R., Becklin, E. E., **Figer, D. F.**, Gilbert, A. M., Levenson, N. A., Teplitz, H. I., & Wilcox, M. K. 2001, *Resolved IR Spectroscopy of Two High Redshift Radio Galaxies*, *Astrophysical Journal*, 563, 63
51. Moneti, A., Stolovy, S., Blommaert, J. A. D. L., **Figer, D. F.**, & Najarro, F. 2001, *Mid-Infrared Imaging and Spectroscopy of the Enigmatic Cocoon Stars in the Quintuplet Cluster*, *Astronomy and Astrophysics*, 366, 106
52. Mumma, M. J. et al. 2001, *A Survey of Organic Volatile Species in Comet C/1999 H1 (Lee) Using NIRSPEC at the Keck Observatory*, *Astrophysical Journal*, 546, 1183
53. Kim, S. S., **Figer, D. F.**, Lee, H. M., & Morris, M. 2000, *N-body Simulations of Compact Young Clusters Near the Galactic Center*, *Astrophysical Journal*, 545, 301
54. Teplitz, H. I. et al. 2000, *Measurement of [OIII] Emission in Lyman Break Galaxies*, *Astrophysical Journal*, 542, 18
55. **Figer, D. F.**, Becklin, E. E., McLean, I. S., Gilbert, A. M., Graham, J. R., Larkin, J. E., Levenson, N. A., Teplitz, H. I., Wilcox, M. K., & Morris, M. 2000, *2-micron Spectroscopy within 0.3 arcseconds of Sgr A\**, *Astrophysical Journal Letters*, 533, L49
56. Gilbert, A. M. Graham, J. R., McLean, I. S., Becklin, E. E., **Figer, D. F.**, Larkin, J. E., Levenson, N. A., Teplitz, H. I., & Wilcox, M. K. 2000, *Infrared Spectroscopy of a Massive Obscured Star Cluster in the Antennae Galaxies (NGC 4038/9) with NIRSPEC*, *Astrophysical Journal Letters*, 533, L57
57. Levenson, N. A., Graham, J. R., McLean, I. S., Becklin, E. E., **Figer, D. F.**, Gilbert, A. M. Larkin, J. E., Teplitz, H. I., & Wilcox, M. K. 2000, *Hot Stars and Cool Clouds: The Photodissociation Region M16*, *Astrophysical Journal Letters*, 533, L53
58. Larkin, J. E., McLean, I. S., Graham, J. R., Becklin, E. E., **Figer, D. F.**, Gilbert, A. M., Glassman, T. M., Levenson, N. A., Teplitz, H. I., & Wilcox, M. K. 2000, *Discovery of an Obscured Broad Line Region in the High Redshift Radio Galaxy MRC 2025-218*, *Astrophysical Journal Letters*, 533, L61
59. Teplitz, H. I., McLean, I. S., Becklin, E. E., Graham, J. R., **Figer, D. F.**, Gilbert, A. M. Larkin, J. E., Levenson, N. A., & Wilcox, M. K. 2000, *The Rest-Frame Optical Spectrum of MS 1512-cB58*, *Astrophysical Journal Letters*, 533, L65
60. McLean, I. S., Graham, J. R., Becklin, E. E., **Figer, D. F.**, Gilbert, A. M. Larkin, J. E., Levenson, N. A., Teplitz, H. I., & Wilcox, M. K. 2000, *J-band Infrared Spectroscopy of a Sample of Brown Dwarfs using NIRSPEC on Keck II*, *Astrophysical Journal Letters*, 533, L45

61. Geballe, T. R., Najarro, F., & **Figer, D. F.** 2000, *A Second Luminous Blue Variable in the Quintuplet Cluster*, *Astrophysical Journal Letters*, 530, L97
62. Lang, C. C., **Figer, D. F.**, Goss, W. M., & Morris, M. 1999, *Radio Detections of Stellar Winds from the Pistol Star and from other Stars in the Galactic Center Quintuplet Cluster*, *Astronomical Journal*, 118, 2327
63. **Figer, D. F.**, Kim, S. S., Morris, M., Serabyn, E., Rich, R. M., & McLean, I. S. 1999, *HST/NICMOS Observations of Massive Stellar Clusters Near the Galactic Center* *Astrophysical Journal*, 525, 750
64. **Figer, D. F.**, Morris, M., Geballe, T. R., Rich, R. M., Serabyn, E., McLean, I. S., Puetter, R., & Yahil, A. 1999, *High-Resolution Infrared Imaging and Spectroscopy of the Pistol Nebula: Evidence for Ejection*, *Astrophysical Journal*, 525, 759
65. **Figer, D. F.**, McLean, I. S., & Morris, M. 1999, *Massive Stars in the Quintuplet*, *Astrophysical Journal*, 514, 202
66. Serabyn, E., Shupe, D., & **Figer, D.** 1998, *An Extraordinary Cluster of Massive Stars in the Milky Way's Core*, *Nature*, 394, 448
67. **Figer, D. F.**, Najarro, F., Morris, M., McLean, I. S., Geballe, T. R., Ghez, A. M., & Langer, N. 1998, *The Pistol Star*, *Astrophysical Journal*, 506, 384
68. **Figer, D. F.**, McLean, I. S., & Najarro, F. 1997, *A K-band Spectral Atlas of Wolf-Rayet Stars*, *Astrophysical Journal*, 486, 420
69. Blum, R. D., Ramond, T. M., Conti, P. S., **Figer, D. F.**, & Sellgren, K. 1997, *H-Band Spectroscopic Classification of OB Stars*, *Astronomical Journal*, 113, 1855
70. **Figer, D. F.**, McLean, I. S., & Morris, M. 1995, *Two New Wolf-Rayet Stars and a Luminous Blue Variable Star in the Quintuplet (AFGL 2004) Near the Galactic Center*, *Astrophysical Journal Letters*, 447, L29
71. Levine, D. A., **Figer, D. F.**, Morris, M., & McLean, I. S. 1995, *A Circumstellar H<sub>2</sub>O Maser Associated with the Circumnuclear Molecular Disk at the Galactic Center?* *Astrophysical Journal Letters*, 447, L101
72. Hildebrand, R. H., Davidson, J. A., Dotson, J., **Figer, D. F.**, Novak, G., Platt, S. R., & Tao, L. 1993, *Polarization of the Thermal Emission from the Dust Ring at the Center of the Galaxy*, *Astrophysical Journal*, 417, 565
73. Morris, M., Davidson, J. A., Werner, M., Dotson, J., **Figer, D. F.**, Hildebrand, R. H., Novak, G., & Platt, S. R. 1992, *Polarization of the Thermal Arches at the Galactic Center*, *Astrophysical Journal Letters*, 399, L63

## CONFERENCE PROCEEDINGS/OTHER

1. Messineo, M., Zhu, Q., **Figer, D.**, Menten, K., Ivanov, V., Kudritzki, R., Chen, C., 2017, A New Sample of Red Supergiants in the Inner Galaxy, Proceedings of the International Astronomical Union, IAU Symposium, Volume 329
2. Kolb, K., **Figer, D.** 2016, *GM-APD Imaging Arrays for Direct Imaging of Exoplanets* , Aerospace Conference, 2015 IEEE
3. Messineo, M., Menten, K., **Figer, D.**, Ivanov, V., Zhu, Q., Kudritzki, R., Davies, Ben., Chen, R., Habing, H., Churchwell, E. 2016, *Hunting for massive late-type stars in the inner Disk of the Milky Way*, Cool Stars 19
4. Najarro, F., de la Fuente, D., Geballe, T. R., Figer, D. F., Hillier, D. J., 2015, *The WR population in the Galactic Center*, Universitätsverlag Potsdam, 113-116
5. Messineo, M., Menten, K., **Figer, D.**, Ivanov, V., Zhu, Q., Kudritzki, R., Davies, Ben., Clark, J., Rich, M., Chen, R., Trombley, C., MackKenty, J., Habing, H., Churchwell, E. 2015, *Hunting for exploding red supergiant stars*, IAU XXIX General Assembly
6. Najarro, F., de la Fuente, D., Geballe, T. R., **Figer, D. F.**, & Hillier, D. J. 2015, *The Massive Star Population at the Center of the Milky Way*, New Windows on Massive Stars: Asteroseismology, Interferometry, and Spectropolarimetry, Proceedings of the International Astronomical Union, IAU Symposium, Volume 307, 426-430
7. Rubio-Díez, M. M., Najarro, F., Sundqvist, J. O., Traficante, A., Puls, J., Calzoletti, L., Herrero, A., **Figer, D.**, & Martin-Pintado, J. 2015, *Herschel/PACS: Constraining clumping in the intermediate wind region of OB stars*. New Windows on Massive Stars: Asteroseismology, Interferometry, and Spectropolarimetry, Proceedings of the International Astronomical Union, IAU Symposium, Volume 307, 137-139
8. de la Fuente, D., Najarro, F., Trombley, C., Davies, B., & **Figer, D. F.** 2014, *The nature of FS CMa stars as revealed by host young clusters*. Highlights of Spanish Astrophysics VIII, Proceedings of the XI Scientific Meeting of the Spanish Astronomical Society held on September 8 – 12, 2014, in Teruel, Spain
9. Kolb, K., Hanold, B., Lee, J., & **Figer, D. F.** 2014, *Evaluation of GM-APD array devices for low-light-level imaging*, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, 9114-12
10. Geballe, T., Najarro, F., de la Fuente, D., & **Figer, D. F.** 2014, *Emission lines in the Near-infrared Spectra of the IR Quintuplet Stars in the Galactic Center*. American Astronomical Society, AAS meeting #223, #346.22, Bulletin of the AAS, Vol. 46
11. Hanold, B., **Figer, D.**, Lee, J., Corrales E., Mears, L., Bangs, J., Getty, J., Mitani, M., & Keasler, C. 2013, *Characterization of a Large Format HgCdTe on Si Focal Plane Array*, Scientific Detector Workshop
12. Kolb, K., Hanold, B., Lee, J., & **Figer, D. F.** 2013, *Test results for an array-based GM-APD detector before and after irradiation*, Scientific Detector Workshop
13. Rubio-Díez, M. M., Najarro, F., Traficante, A., Calzoletti, L., Puls, J., **Figer, D.**, Sundqvist, J., Herrero, A., Martin-Pintado, J., & Trombley, C. 2013, *Far-Infrared Herschel-PACS flux observations of OB stars*. Massive Stars: From  $\alpha$  to  $\Omega$  held on June 10 - 14, 2013, in Rhodes, Greece

14. de la Fuente, D., Najarro, F., Davies, B., Trombly, C., **Figer, D. F.**, & Herrero, A. 2013, *Hot stars in young massive clusters: Mapping the current Galactic metallicity*. Massive Stars: From  $\alpha$  to  $\Omega$  held on June 10 - 14, 2013, in Rhodes, Greece
15. Messineo, M., Davies, B., **Figer, D. F.**, Trombly, C., Valenti, E., Najarro, F., MacKenty, J., Menten, K., Rich, R. M., Kudritzki, R. P., Clark, S., & Ivanov, V. 2012, *Young Massive Stellar Clusters in the Milky Way: the C11813-178 and GLIMPSE 9 Clusters*. Star Clusters in the Era of Large Surveys, Astrophysics and Space Science Proceedings, ISBN 978-3-642-22112-5. Springer-Verlag Berlin Heidelberg, p. 185
16. de la Fuente, D., Najarro, F., Davies, B., & **Figer, D. F.** 2012, *Discovery and spectroscopic study of the massive Galactic cluster Mercer 81*, Highlights of Spanish Astrophysics VII, Proceedings of the X Scientific Meeting of the Spanish Astronomical Society held on July 9 - 13, 2012, in Valencia, Spain
17. Messineo, M., Davies, B., **Figer, D. F.**, Trombly, C., Valenti, E., Najarro, F., MacKenty, J., Menten, K., Rich, R. M., Kudritzki, R. P.; Clark, S., & Ivanov, V. 2012, *Young Massive Stellar Clusters in the Milky Way: the C11813-178 and GLIMPSE 9 Clusters*. Star Clusters in the Era of Large Surveys/Astrophysics and Space Science Proceedings. Springer-Verlag Berlin Heidelberg. 185-190
18. Cruddace, R. G., Chakrabarti, S., Cash, W., Eberspacher, P., **Figer, D.**, Figueroa, O., Harris, W., Kowalski, M., Maddox, R., Martin, C., McCammon, D., Nordsieck, K., Polidan, R., Sanders, W., Wilkinson, E., & Asrat 2011, *The Extended Duration Sounding Rocket (EDSR): Low Cost Science and Technology Missions*, American Geophysical Union, abstract #SA31A-1962
19. Davies, B., Kudritzki, R. P., **Figer, D.**, Gazak, Z., Trombly, C., Kouveliotou, C., Evans, C., Najarro, P., Herrero, A., MacKenty, J., Origlia, L., Piez, B., Messineo, M., Trager, S., & Chen, Y. 2011, *Exploring the local universe with massive stars*, IAC Talks, Astronomy and Astrophysics Seminars from the Instituto de Astrofísica de Canarias, 189
20. Kim, S.S., Saitoh, T. R., Jeon, M., Merritt, D., **Figer, D. F.**, & Wada, K. 2011, *Sustained Star Formation in the Central Molecular Zone of the Milky Way, The Galactic Center: a Window to the Nuclear Environment of Disk Galaxies*, Proceedings of a workshop held at Shanghai, China on October 19-23, 2009, San Francisco: Astronomical Society of the Pacific, 79
21. Kim, S. S., Saitoh, T. R., Jeon, M., Merritt, D., **Figer, D. F.**, & Wada, K. 2011, *Star Formation in the Central Molecular Zone of the Milky Way*, Computational Star Formation, Proceedings of the International Astronomical Union, IAU Symposium, Volume 270, 359-362
22. Olsen, K. A., Covey, K., Saha, A., Beers, T. C., Bochanski, J., Boeshaar, P., Cargile, P., Catelan, M., Burgasser, A., Cook, K., Dhital, S., **Figer, D.**, Ivezić, Z., Kalirai, J., McGehee, P., Minniti, D., Pepper, J., Prsa, A., Sarajedini, A., Silva, D., Smith, J. A., Stassun, K., Thorman, P., Williams, B., & LSST Stellar Populations Collaboration 2011, *The Stellar Populations of the Milky Way and Nearby Galaxies with LSST*, AAS Meeting #217, #252.15, Bulletin of the AAS, Vol. 43
23. Richards, E., Lang, C. C., Trombly, C., **Figer, D. F.**, & HST/NICMOS GC Paschen Alpha Team 2011, *Multiwavelength Observations of the Most Massive Stellar Clusters in the Galaxy*, AAS Meeting #217, #241.07, Bulletin of the AAS, Vol. 43

24. **Figer, D. F.**, Aull, B. F., Schuette, D. R., Hanold, B. J., Kolb, K., & Lee, J. 2011, *Silicon single photon imaging detectors*, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, OP217
25. **Figer, D. F.**, Lee, J., Hanold, B. J., Aull, B. F., Gregory, J. A., & Schuette, D. R. 2011, *A photon-counting detector for exoplanet missions*, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, OP408
26. Wurtz, R., Olivier, S., Riot, V., Hanold, B. J., & **Figer, D. F.** 2010, *Centroid precision as a function of total counts in a windowed CMOS image of a point source*, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, 7742, 774228
27. Kolb, K. E., Maloney, C. W., Stoffel, N. C., Raisanen, A. D., Ashe, B., & **Figer, D. F.** 2010, *Hybridization of a sigma-delta-based CMOS hybrid detector*, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, 7742-12
28. Hanold, B. J., **Figer, D.**, Ashe, B., Montagliano, T., Stauffer, D., Ignjatovic, Z., Maricic, D., & Nikzad, S. 2010, *Characterization of a  $\Sigma$ - $\Delta$ -based CMOS monolithic detector*, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, 7742-10
29. Ignjatovic, Z., Maricic, D., **Figer, D.**, Ashe, B., Hanold, B. J., Montagliano, T., & Stauffer, D. 2010, *Fully digital image sensor employing sigma-delta indirect feedback ADC with high-sensitivity to low-light illuminations for astronomical imaging applications*, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, 7742-43
30. Ivanov, V. D., Messineo, M., Zhu, Q., **Figer, D.**, Borissova, J., Kurtev, R. & Ivanov, G. R. 2010, *Infrared Surveys of Galactic Star Clusters*, IAU Symposium 266
31. Malphrus, B. K., Jernigan, J. G., Bloom, J. S., Boggs, S., Butler, N. R., Cominsky, L. R., Doering, T. J., Doty, J. P., Erb, D. M., **Figer, D. F.**, Hurley, K. C., Kimel, K. W., Lumpp, J. E., & Labov, S. 2009, *A Proposed Student Built and Operated Satellite: The Gamma Ray Burst Polarization Observer (PoLOSat)*, AAS, 213, #476.03
32. Herrero, A., Marin-Franch, A., Lenorzer, A., Font, A., Najarro, F., **Figer, D.**, & Davies, B. 2008, *THE MASGOMAS PROJECT: A Spectroscopic Study of G61.48+0.09*, IAU250, 7, 551
33. **Figer, D.** 2007, *Young Massive Clusters*, IAU250, 3, 247-256
34. Messineo, M. and **Figer, D.** 2007, *A Systematic Search for Stellar Clusters in the Galactic Plane*, IAU250, 7, 552
35. Davies, B., **Figer, D.**, Kudritzki, R. P., MacKenty, J., Law, C. J., Najarro, F., & Herrero, A. 2007, *The Massive Galactic Red Supergiant Clusters*, IAU250, 7, 549
36. Schubnell M., Bebek C., Brown M.G., Bower C., Cole D., **Figer D.**, Lorenzon W., Mostek N., Mufson S., Seshadri S., Smith R., & Tarlé G. 2007, *Characterization of Near Infrared Detectors for SNAP*, 2007 Nuclear Science Symposium and Medical Imaging Conference N15-85 held Oct 27<sup>th</sup> - Nov 3<sup>rd</sup> in Honolulu, Hawaii.
37. Sheshadri, S. et al. 2007, *Comparing the low-temperature performance of megapixel NIR InGaAs and HgCdTe imager arrays*, Society of Photo-Optical Instrumentation Engineers (SPIE), 6690, 669006
38. Simms, L., Figer, D., Hanold, B., Kerr, D., Gilmore, K., Kahn, S., & Tyson, A., P. 2007, *First use of a HyViSI H4RG for astronomical observations*, Focal Plane Arrays for Space

- Telescopes III, edited by Thomas J. Grybcwicz, Cheryl J. Marshall, Penny G. Warren, Society of Photo-Optical Instrumentation Engineers (SPIE), 6690, 66900H
39. **Figer, D. F.** & Kim, S. S. 2004, *Massive Binaries in the Galactic Center*, Massive Stars in Interactive Binaries, ASP Conference Series 367. Edited by Nicole St.-Louis and Anthony F.J. Moffat. San Francisco: Astronomical Society of the Pacific, 2007, p.679
  40. Radeka, V., Geary, J. C., Gilmore, K., Nordby, M., Tyson, J. A., Oliver, J., **Figer, D.**, & Stubbs, C. 2007, *The LSST Sensor Development Program*, AAS, 0.86.LSST
  41. Mercer, A., Chizek, M., Lang, C. C., **Figer, D. F.**, & Najarro, P. 2007, *High Resolution Radio Observations of the Nebulae of Luminous Blue Variable Stars*, AAS, 101
  42. Wachter, S., Kouveliotou, C., Patel, S., **Figer, D.**, & Woods, P. 2007, *Spitzer Space Telescope Observations of SGR and AXP Environments*, AAS, 131
  43. Brown, M. G., Bebek, C., Bernstein, G., Bonissent, A., Carithers, B., Cole, D., **Figer, D.**, Gerdes, D., Gladney, L., & Lorenzon, W. 2006, *Development of NIR detectors and science-driven requirements for SNAP*, Society of Photo-Optical Instrumentation Engineers (SPIE), 6276, 96
  44. Geary, J., **Figer, D.**, Gilmore, D. K., O'Connor, P., Oliver, J., Radeka, V., Stubbs, C., Takas, P., & Tyson, J. A. 2006, *The LSST sensor technologies studies*, Society of Photo-Optical Instrumentation Engineers (SPIE), 6276, 1
  45. Schubnell, M. et al. 2006, *Near infrared detectors for SNAP*, Society of Photo-Optical Instrumentation Engineers (SPIE), 6276, 23
  46. Seshadri, S. et al. 2006, *Characterization of NIR InGaAs imager arrays for the JDEM SNAP mission concept*, Society of Photo-Optical Instrumentation Engineers (SPIE), 6276, 25
  47. Oh, S. K., Kim, S. S., **Figer, D. F.** & Morris, M. 2006, *Mass Distribution in the Central Few Parsecs of Our Galaxy*, Black Holes: From Stars to Galaxies - Across the Range of Masses, International Astronomical Union. Symposium no. 238, held 21-25 August, 2006 in Prague, Czech Republic, S238, #120
  48. Baggett, S., Brown, T., Boucrarut, R., **Figer, D.**, Hartig, G. F., Kimble, R., MacKenty, J., Robberto, M., Telfer, R. C., Quijada, M. A., Quijano, J., Arsenovic, P., Allen, G., Hilbert, B., Lupie, O. L., & Townsend, J. M. 2006, *Filters for WFC3*, Society of Photo-Optical Instrumentation Engineers (SPIE), 6265
  49. O'Connor, P., Radeka, V., **Figer, D.**, Geary, J. C., Gilmore, K., Oliver, J., Stubbs, C. W., Takacs, P. Z., & Tyson, J. A. 2006, *Study of silicon thickness optimization for LSST*, Society of Photo-Optical Instrumentation Engineers (SPIE), 6276, 53
  50. **Figer, D. F.**, MacKenty, J., Robberto, M., Smith, K., Najarro, F., & Kudritzki, R. P. 2006, *Discovery of an Extraordinarily Massive Young Stellar Cluster*, AAS, #91.02
  51. Brown, M. G., Schubnell, M., Tarle, G., Smith, R., Bonati, M., Guzman, D., **Figer, D.**, Mostek, N., Mufson, S., Cole, D., Seshardi, S., SNAP Collaboration, & SNAP Simulation Team 2006, *Development of NIR Detectors and Science Driven Requirements for SNAP*, AAS, #73.04
  52. Kim, S. S., **Figer, D. F.**, & Lee, M. G. 2005, *Nonlinear Reddening Behavior in the Near-Infrared Color-Magnitude Diagram*, AAS, #133.12
  53. Kimble, R. A., MacKenty, J. W., Hill, R. J., Robberto, M., Delo, G., Foltz, R., Malumuth, E. M., Reed, S., Russell, A.M., Waczynski, A., Wen, Y., **Figer D.**, & WFC3 Team 2005,

- Improved Infrared Focal Plane Arrays for HST/Wide Field Camera 3*, AAS 207, #125.02, 37
54. Baggett, S., Boucarut, R., Telfer, R., Kim-Quijano, J., Quijada, M., Arsenovic, P., Brown, T., Dailey, M., **Figer, D.**, Hartig, G., Hilbert, B., Kimble, R. A., Lupie, O., MacKenty J., Madison, T., Robberto, M., Rice, S., Shu, J., & Townsend, J. 2005, *Characterization Tests of WFC3 Filters*, AAS, #125.01
  55. Tarle, G. et al. 2005, *Issues and Science Driven Specifications for the Near Infrared Detector System for SNAP*, AAS, #131.05
  56. **Figer, D. F.** 2005, in *The Initial Mass Function 59 years later*, ed. E. Corbelli & F. Palle. (Dordrecht: Springer), 89.
  57. O'Connor, P., **Figer, D.**, Geary, J., Gilmore, K. Oliver, J., Radeka, V., Stubbs, C., Takacs, P., & Tyson, A. 2004, *LSST Focal Plane and Detector Development*, AAS, #108.07
  58. Meixner, M., Churchwell, E. B., Knezek, P., **Figer, D. F.**, Doering, R., Barkhouser, R. H., & Smee, S. 2004, *Design study for the WIYN high resolution infrared camera*, AAS, #49.12
  59. **Figer, D. F.**, Regan, M., & Morse, E. 2004, *Si PIN Detector Testing for LSST*, AAS, #108.08
  60. Oh, S., Kim, S. S., **Figer, D. F.**, & Morris, M. 2004, *Mass Distribution in the Central Few Parsecs of Our Galaxy*, AAS, #24.03
  61. Sivaramakrishnan, A., Morse, E., Makidon, R. B., Bergeron, L. E., Casertano, S., **Figer, D.F.**, Acton, D. S., Atcheson, P. D., & Rieke M. J. 2004, *Limits on routine wavefront sensing with NIRCcam on JWST*, Society of Photo-Optical Instrumentation Engineers (SPIE), Conference Series 5487, 909
  62. Rauscher, B. J. et al. 2004, *Detectors for the JWST Near-Infrared Spectrograph*, Society of Photo-Optical Instrumentation Engineers (SPIE), Conference Series 5487, 710
  63. Rauscher, B. J., **Figer, D. F.**, Jakobsen, P., Hill, R. J., Moseley, S. H., Regan, M. W., & Strada, P. 2004, *Detectors for the JWST Near-Infrared Spectrograph*, AAS, 204, #11.02
  64. Meixner, M., Knezek, P., Churchwell, E., Doering, R., Indebetouw, R., **Figer, D.**, MacKenty, J. W., Fruchter, A., Barkhouser, R., & Smee, S. A. 2004, *Design study for the WIYN high resolution infrared camera*, Society of Photo-Optical Instrumentation Engineers (SPIE), 5492, 1440
  65. **Figer, D. F.** 2004, *Young Massive Clusters in the Galactic Center*, in ASP Conf. Ser. 322, *The formation and evolution of massive young star clusters*, eds. H.J.G.L.M. Lamers, L.J. Smith & A. Nota (San Francisco: ASP), 49
  66. Kim S. S., Morris, M., & **Figer, D. F.** 2004, *Dynamical Friction on Galactic Center Star Clusters with a Central Intermediate-Mass Black Hole*, 2004, in ASP Conf. Ser. 322, *The formation and evolution of massive young star clusters*, eds. H.J.G.L.M. Lamers, L.J. Smith & A. Nota (San Francisco: ASP), 475
  67. **Figer, D. F.**, Rauscher, B. J., Regan, M. W., Morse, E., Balleza, J., Bergeron, L., & Stockman, H. S. 2004, *Independent Testing of JWST Detector Prototypes*, Society of Photo-Optical Instrumentation Engineers (SPIE) , 5167, 270
  68. Rauscher, B. J., Strada, P., Regan, M. W., **Figer, D. F.**, Jakobsen, P., Moseley, H. S., & Boeker, T. 2003, *Detectors for the JWST Near-Infrared Spectrometer*, BAAS, 35, 1411
  69. Rauscher, B. J., **Figer, D. F.**, & Regan, M. 2003, *Silicon PIN Diodes: A Promising Technology for UV-Optical Space Astronomy*, NHST Workshop

70. **Figer, D. F.** 2003, *The IMF in the Galactic Center*, in proceedings of The Centers of Galaxies, A Workshop held at Castle Ringberg
71. **Figer, D. F.** 2003, *Massive Stars and The Creation of our Galactic Center*, in *Astron. Nachr.*, Vol. 324, No. S1 (2003), Special Supplement "The central 300 parsecs of the Milky Way," Eds. A. Cotera, H. Falcke, T. R. Geballe, S. Markoff, 255
72. Kim, S. S., **Figer, D. F.**, & Morris, M. 2003, *Dynamical Friction Near the Galactic Center*, in *Astron. Nachr.*, Vol. 324, No. S1 (2003), Special Supplement "The central 300 parsecs of the Milky Way", Eds. A. Cotera, H. Falcke, T. R. Geballe, S. Markoff, 321
73. Sivaramakrishnan, A., **Figer, D. F.**, Bushouse, H., Stockman, H. S., Ohara, C., Redding, D., Im, M., & Offenber, J. 2003, *NIRCAM Image Simulations for NGST Wavefront Sensing*, 201, BAAS, 82.03
74. Stolte, A., Brandner, W., Grebel, E. K., **Figer, D. F.**, Eisenhauer, F., Lenzen, R., & Harayama, Y. 2003, *NAOS-CONICA performance in a crowded field - The Arches Cluster*, *The Messenger*, 111, 9-13
75. Kim, S. S., Lee, M. G., & **Figer, D. F.** 2003, *Stellar Distribution and Population in the Central Few Parsecs of Our Galaxy*, BAAS, 201, 145.01
76. **Figer, D. F.** et al. 2003, *The Independent Detector Testing Laboratory and the JWST Detector Program*, BAAS, 201, 131.05
77. **Figer, D. F.** 2003, *Massive Stars and The Creation of our Galactic Center*, in proceedings of IAU symposium 212 on "A Massive Star Odyssey, From Main Sequence To Supernova," 487
78. **Figer, D. F.**, Agronin, M., Balleza, J., Barkhouser, R., Bergeron, L., Greene, G. R., McCandliss, S. R., Rauscher, B. J., Reeves, T., Regan, M. W., Sharma, U., & Stockman, H. S. 2003, *The Independent Detector Testing Laboratory and the NGST Detector Program*, Society of Photo-Optical Instrumentation Engineers (SPIE) , 4850, 981
79. Sharma, U., **Figer, D. F.**, Sivaramakrishnan, A., Agronin, M., Balleza, J., Barkhouser, R., Bergeron, L., Greene, G. R., McCandliss, S. R., Rauscher, B. J., Reeves, T., Regan, M. W., & Stockman, H. S. 2003, *Intra-Pixel Sensitivity in NIR Detectors for NGST*, Society of Photo-Optical Instrumentation Engineers (SPIE) , 4850, 1001
80. Sivaramakrishnan, A., **Figer, D. F.**, Bushouse, H., Stockman, H. S., Ohara, C., Redding, D., Im, M., & Offenber, J. 2003, *NIRCAM Image Simulations for NGST Wavefront Sensing*, Society of Photo-Optical Instrumentation Engineers (SPIE) , 4850, 388
81. Rauscher, B. J., **Figer, D. F.**, Agronin, M., Balleza, J., Barkhouser, R., Bergeron, L., Greene, G. R., McCandliss, S. R., Reeves, T., Regan, M. W., Sharma, U., & Stockman, H. S. 2003, *Ultra-Low Background Operation of Near-Infrared Detectors for NGST*, Society of Photo-Optical Instrumentation Engineers (SPIE) , 4850, 962
82. Stolte, A., Grebel, E. K., Brandner, W., & **Figer, D. F.** 2002, *Infrared Imaging of the Arches Cluster - Adaptive Optics in the densest region of the Milky Way*, in proceedings of "Extragalactic Star Clusters," IAU Symposium 207 eds. D. Geisler, E.K. Grebel, and D. Minniti, (Provo: ASP), 207, 132
83. Stolte, A., Grebel, E. K., Brandner, W., & **Figer, D. F.** 2002, *The Mass Function of the Arches Cluster from Gemini Adaptive Optics Data*, Presented at the IAOC Workshop on "Galactic Star Formation Across the Stellar Mass Spectrum" held in La Serena, Chile,

March 2002; to be published in the ASP Conference Series, edited by J. M. De Buizer, 6360

84. **Figer, D. F.**, & Morris, M. 2002, *Starburst Clusters in Galactic Nuclei*, in “Modes of Star Formation and the Origin of Field Star Populations,” conference proceedings, ASP, 285, 381
85. Ladbury, R., Pickel, J. C., Gee, G., Jordan, T. M., Bergeron, L., Rauscher, B., Reed, R. A., Marshall, P. W., **Figer, D.**, Fodness, B., & Kniffin, S. 2002, *Characteristics of the Hubble Space Telescope's radiation environment inferred from charge-collection modeling of Near-Infrared Camera and Multi-Object Spectrometer dark frames*, Nuclear Science, IEEE Transactions, 49, 2765
86. Stolte, A., Grebel, E. K., Brandner, W., & **Figer, D. F.** 2001, *Mass Function of the Arches Cluster-Gemini meets HST*, Astronomische Gesellschaft Meeting Abstracts, 18, 125
87. **Figer, D. F.**, Gilmore, D., Morris, M., McLean, I. S., Becklin, E. E., Gilbert, A. M., Graham, J. R., Larkin, J. E., Levenson, N. A., & Teplitz, H. I. 2001, *High Precision Stellar Velocities in the Galactic Center*, BAAS, 198, 87.06
88. Kim, S. S., **Figer, D. F.**, Lee, H. M., & Morris, M. 2001, *N-Body Simulations of Compact Young Star Clusters near the Galactic Center*, ASP Conf. Ser. 228: Dynamics of Star Clusters and the Milky Way, 485
89. Moneti, A., Blommaert, J. A. D. L., & **Figer, D. F.** 2001, *Mid-Infrared Imaging and Spectroscopy of the Enigmatic Cocoon Stars in the Quintuplet Cluster*, ASP Conf. Ser. 243: From Darkness to Light: Origin and Evolution of Young Stellar Clusters, 517
90. McLean, I. S., Graham, J. R., Becklin, E. E., **Figer, D. F.**, Larkin, J. E., Levenson, N. A., & Teplitz, H. I. 2000, *Performance and results with the NIRSPEC echelle spectrograph on the Keck II telescope*, Society of Photo-Optical Instrumentation Engineers (SPIE) , 4008, 1048
91. **Figer, D. F.** 2000, *The IMF in the Galactic Center*, in Starburst Galaxies: Near and Far, Proceedings of a Workshop held at Ringberg Castle, Germany, 10-15 September, 2000, Edited by L. Tacconi and D. Lutz. Heidelberg: Springer-Verlag, 2001, 13
92. **Figer, D. F.** & Kim, S. S. 2000, *Stellar Collisions in the Galactic Center*, in “Stellar Collisions and Mergers,” conference proceedings, ASP, 263
93. Mumma, M. J. et al. 2000, *A survey of organic volatile species in comet C/1999 H1 (Lee) using NIRSPEC at the Keck*, DPS, 32, 4404
94. Carson, J. E., Larkin, J. E., McLean, I. S., Graham, J. R., Becklin, E. E., **Figer, D. F.**, Gilbert, A. M., Levenson, N. A., Teplitz, H. I., & Wilcox, M. K. 2000, *NIRSPEC Spectra of High-z Radio Galaxies*, BAAS, 196, #50.15
95. **Figer, D. F.**, McLean, I. S., Becklin, E. E., Graham, J. R., Larkin, J. E., Levenson, N. A., & Teplitz, H. I. 2000, *NIRSPEC Observations of the Galactic Center*, Society of Photo-Optical Instrumentation Engineers (SPIE) , 4005-17
96. **Figer, D. F.**, Becklin, E. E., Morris, M., McLean, I. S., Graham, J. R., Gilbert, A. M., Larkin, J. E., Levenson, N. A., & Teplitz, H. I. 2000, *Keck/NIRSPEC Spectroscopy of Stars Near the Supermassive Black Hole at the Galactic Center*, BAAS, 195, #62.02
97. Wilcox, M. K., McLean, I. S., Becklin, E. E., **Figer, D. F.**, Gilbert, A. M., Graham, J. R., Larkin, J. E., Levenson, N. A., Teplitz, H. I., Kirkpatrick, J. D., & Burgasser, A. J. 2000,

*NIRSPEC brown dwarf spectroscopic survey*, Society of Photo-Optical Instrumentation Engineers (SPIE) , 4005, 296

98. **Figer, D. F.** 1999, *The Pistol Star: A Supergiant Among its Ponderous Peers*, Mercury, 28, #6, 32
99. Roe, H., Graham, J. R., de Pater, I., Gibbard, S., Macintosh, B., Max, C., Baines, K., Gilbert, A. M., McLean, I. S., Becklin, E. E., **Figer, D. F.**, Larkin, J. E., Levenson, N. A., Teplitz, H. I., & Wilcox, M. K. 1999, *Near-Infrared Spectroscopic Investigation of Neptune's Hazes and Storms at the Keck Telescope* American Astronomical Society, DPS meeting #31, #51.09
100. Mumma, M. J., Dello Russo, N., Disanti, M., Gilbert, A. M., Graham, J. R., McLean, I. S., Becklin, E. E., **Figer, D. F.**, Larkin, J. E., Levenson, N. A., Teplitz, H. I., & Wilcox, M. K. 1999, *Detection of ethane, methane, OH and other volatile species in comet C/1999 H1 (Lee) with NIRSPEC at the Keck Observatory*, American Astronomical Society, DPS meeting #31, #32.06
101. Larkin, J. E., McLean, I. S., Graham, J. R., Becklin, E. E., **Figer, D. F.**, Gilbert, A. M., Glassman, T. M., Levenson, N. A., Teplitz, H., & Wilcox, M. K. 2000, *Infrared Spectroscopy of the High Redshift Radio Galaxy MRC 2025-218 and a Neighboring Extremely Red Galaxy*, in proceedings of The Hy-Redshift Universe: Galaxy Formation and Evolution at High Redshift, eds. A. J. Bunker and W. J. M. van Breugel, ASP, 193
102. Gilbert, A. M., Graham, J. R., McLean, I. S., Becklin, E. E., **Figer, D. F.**, Larkin, J., Levenson, N. A., Teplitz, H. I., & Wilcox, M. 1999, *Infrared Spectroscopy of a Massive Obscured Star Cluster in NGC 4038/4039 with NIRSPEC* in Proceedings of SOFIA-Star Formation Workshop in Santa Cruz, CA, July 12-17, 1999
103. **Figer, D. F.** 1999, *Super-star clusters in the Galactic Center as revealed by HST-NICMOS*, in: K.A. van der Hucht, G. Koenigsberger & P. R. J. Eenens (eds.), *Wolf-Rayet Phenomena in Massive Stars and Starburst Galaxies*, Proc. IAU Symposium No. 193 (San Francisco: ASP), 459
104. Serabyn, E., Shupe, D., & **Figer, D. F.** 1999, *Massive Young Stars in the Arches Cluster*, in Proceedings of "The Central Parsecs: Galactic Center Workshop '98", ASP Conf. Series, Vol. 186, 320
105. **Figer, D. F.** 1999, *HST/NICMOS Imaging of the Quintuplet and Arches Clusters*, in proceedings of "The Central Parsecs: Galactic Center Workshop '98," ASP Conf. Series, Vol. 186, 329
106. Najarro, F., Hillier, D. J., **Figer, D. F.**, & Geballe, T. R. 1999, *Theoretical Modelling of Hot Stars* in Proceedings of "The Central Parsecs: Galactic Center Workshop '98", ASP Conf. Series, Vol. 186, 340
107. Levine, D., Morris, M., & **Figer, D. F.** 1999, *A Superbubble Surrounding The Quintuplet at the Galactic Center?*, in P. Cox and M. F. Kessler (eds.), "The Universe as seen by ISO", (ESA-SP 427), p. 699
108. Moneti, A., Blommaert, J., **Figer, D. F.**, Najarro, F., & Stolovy, S. 1999, *The Pistol, the Pistol Star, and the Quintuplet in the Galactic Centre: Results from ISO CVF imaging and SWS spectroscopy* in P. Cox and M. F. Kessler (eds.), "The Universe as seen by ISO", (ESA-SP 427), p. 723

109. **Figer, D. F.**, Najarro, F., & Langer, N. 1998, *The Pistol Star and Massive Stars in the Galactic Center*, in proceedings of "Unsolved Problems in Stellar Evolution," STScI, 272
110. McLean, I. S. et al. 1998, *Design and development of NIRSPEC: a near-infrared echelle spectrograph for the Keck II Telescope*, Society of Photo-Optical Instrumentation Engineers (SPIE) Vol. 3354, 566
111. **Figer, D. F.**, McLean, I. S., & Becklin, E. E. 1998, *FLITECAM: a 1-5 micron camera for testing the performance of SOFIA*, Society of Photo-Optical Instrumentation Engineers (SPIE) Vol. 3354, 1179
112. Robichaud, J. L., Zellers, B., Philippon, R., McLean, I. S., & **Figer, D. F.** 1998, *Cryogenic performance of the NIRSPEC three-mirror anastigmat*, Society of Photo-Optical Instrumentation Engineers (SPIE) Vol. 3354, 1068
113. **Figer, D. F.**, & McLean I. S. 1998, *Wavefront error budget and optomechanical tolerancing for NIRSPEC*, Society of Photo-Optical Instrumentation Engineers (SPIE) Vol. 3354, 1005
114. **Figer, D. F.**, Morris, M., McLean, I. S., Ghez, A. M., Najarro, F., Geballe, T. R., Serabyn, E., & Rich, R. M. 1998, *The Pistol Star*, BAAS 191
115. **Figer, D. F.**, McLean, I. S., Morris, M., & Najarro, F. 1998, *The Stellar Content in the Quintuplet Cluster*, in Proceedings of the 184th symposium of the International Astronomical Union, held in Kyoto, Japan, August 18-22, 1997, Edited by Yoshiaki Sofue. (Dordrecht: Kluwer), 61.
116. Becklin, E., Morris, M., **Figer, D. F.**, Puetter, R., & Jones, B. 1998, *12.5-Micron Imaging of Sgr A West with the Keck Telescope*, Proceedings of the 184th symposium of the International Astronomical Union, held in Kyoto, Japan, August 18-22, 1997, Edited by Yoshiaki Sofue. (Dordrecht: Kluwer), 293
117. Cotera, A. S., **Figer, D. F.**, & Blum, R. D. 1996, *Wolf-Rayet Stars in the Galactic Center*, in *Wolf-Rayet Stars in the Framework of Stellar Evolution*, eds. J.-M. Vreux, A. Detal, D. Fraipont-Caro, E. Gosset, G. Rauw
118. **Figer, D. F.**, Najarro, F., McLean, I. S., Morris, M., & Geballe, T. R. 1996, *An LBV-candidate in the Quintuplet (AFGL2004) near the Galactic Center*, in "Luminous Blue Variables: Massive Stars in Transition," eds. A. Nota, H. J. G. L. M. Lamers, ASP Conference Series Vol. 120, 196
119. **Figer, D. F.**, Morris, M., & McLean, I. S. 1996, *Hot Stars in the Quintuplet*, 4th ESO/CTIO Workshop on the Galactic Center, La Serena, Chile, ed. R. Gredel, 263
120. McLean, I. S., Becklin, E. E., **Figer, D. F.**, Larson, S., Liu, T., & Graham, J. 1995, *NIRSPEC: a near-infrared cross-dispersed echelle spectrograph for the Keck II telescope*, Society of Photo-Optical Instrumentation Engineers (SPIE) Vol. 2475: Infrared Detectors and Instrumentation for Astronomy, 350
121. **Figer, D. F.**, McLean, I. S., Morris, M. 1995, *Discovery of Two Wolf-Rayet Stars Near the Galactic Center*, BAAS, 26, 1348
122. **Figer, D. F.**, Becklin, E. E., McLean, I. S., & Morris, M. 1994, *Discovery of Luminous NIR Sources Associated with Ionized Gas near the Galactic Center*, Infrared Astronomy with Arrays, ed. I. S. McLean, 545

123. McLean, I. S., Macintosh, B., Liu, T., Casement, L. S., **Figer, D. F.**, Teplitz, H., Larson, S., Lacayanga, F., Silverstone, M., & Becklin, E. E. 1994, *Performance and Results with a Double-Beam Infrared Camera*, Society of Photo-Optical Instrumentation Engineers (SPIE) Vol. 2198: Instrumentation in Astronomy VI, 457
124. McLean, I. S., Becklin, E. E., Brims, G., Canfield, J., Casement, L. S., **Figer, D. F.**, Henriquez, F., Huang, A., Liu, T., Macintosh, B., & Teplitz, H. 1993, *The UCLA Double-beam Infrared Camera System*, Society of Photo-Optical Instrumentation Engineers (SPIE) Vol. 1946: Infrared Detectors and Instrumentation, 513
125. Novak, G., Platt, S. R., Goldsmith, P. F., Hildebrand, R. H., Dotson, J., **Figer, D. F.**, & Davidson, J. A. 1993, *Far-infrared Polarization of the Sagittarius B2 Molecular Cloud*, BAAS 182, 34.07