

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 2016
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, 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
Member, ANUBIS Team	2016-2017
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
32. Justin Beigel	Co-op	RIT	2017

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 Montagliano (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
46. Hyun Won (Executive Assistant), CfD
47. Dwayne Thompson (Executive Assistant), CfD
48. Justin Beigel (Lab Programming 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	18,205,663
2018-2019	TAP Process Development 2018 (Rochester Hub)	DOD. Dept of the Air Force, Materiel Command / Research Foundation of SUNY	233,456
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

Year	Description	Sponsor	Amount
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
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

Year	Description	Sponsor	Amount
2004			22,000
2005		SLAC	25,000
2004-2006	LSST CMOS Detector Testing Project	UC Davis/NSF	125,879
2004	LSST CMOS Detector Testing Project	SLAC	78,000
2003	JWST NIRSpec detector testing project	NASA	73,000
2003			273,000
2001-2003	Comparative Characterization of NIR Detectors for NGST	NASA	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. Newscientist.com, January, 4, 2018, "The Universe could be full of more huge stars than we thought"
2. United Press International, January 9, 2006, "Astronomers find star cluster in Milky Way"
3. New Scientist, August 9, 2007, "Largest swarm of giant stars is a 'supernova factory'"
4. New Scientist, January 10, 2006, "Supergiant supernova"
5. BBC News, March 9, 2005, "Upper limit placed on star growth"
6. New York Times, March 10, 2005, "Stars on Diet: Weight Is Limited to 150 Suns, Researchers Find"
7. USA Today, March 10, 2005, "Hubble shows stars have weight limit"
8. Astronomy Magazine, March 10, 2005, "How hefty can a star get?"
9. Sky & Telescope, March 10, 2005, "The Most Massive Stars"
10. Science News, March 12, 2005, "Weighing In on a Star: A stellar size limit"

11. Science News for Kids, March 16, 2005, “No Fat Stars”
12. New York Times, October 8, 1997, “At the Core of the Milky Way, The Brightest Star Ever Seen,” Front Page
13. 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>

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1. Najarro, F., Geballe, T., **Figer, D.**, de la Fuente, D. 2017, *Emission Lines in the Near-infrared Spectra of the Infrared Quintuplet Stars in the Galactic Center*, The Astrophysical Journal, in press
2. 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
3. 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
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5. 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
6. 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
7. 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
8. 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
9. **Figer, D. F.** 2014, *Astrophysics: Monster star found hiding in plain sight*, Nature, 515, 42
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CONFERENCE PROCEEDINGS/OTHER

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