

Resume – Dr. Stefi Baum, 8/20/10

Dr. Stefi Alison Baum  
Director, Department Chair, and Professor, Xerox Chair  
Chester F. Carlson Center for Imaging Science  
54 Lomb Memorial Drive  
Rochester Institute of Technology  
Rochester, NY 14623-5604

Place of Birth		Chicago Illinois
High School	June 1976	Princeton Public High School, Princeton, NJ
College	June 1980	Harvard University, Cambridge, MA B. A. Physics, cum laude
Graduate School	Dec 1987	University of Maryland, College Park, MD Ph.D. Astronomy

Post-Degree Education

American Council on Education:

- Chairing the Academic Department

MIT-Sloan Executive Series:

- System Dynamics for Senior Managers
- Managing Technical Professionals and Organizations
- The Innovative Organization

Harvard-MIT-Tufts Program on Negotiation, Executive Ed Series:

- Program on Negotiation for Senior Executives
- Dealing with Difficult People and Difficult Situations

United States Foreign Service Institute:

- Global Issues

Pardee RAND Graduate School:

- New Security Challenges: Policy Issues and Analytic Approaches

Expertise

Extensive leadership experience in a range of environments including government, national centers, academia and in highly interdisciplinary environments. Expertise working at the interface of engineering and science, and at the interface of engineering, science and public policy. Experience with university pedagogy in science, engineering and innovation, K-12 STEM (Science Technology Engineering and Math) education and public outreach, and programs to recruit and retain women and minorities in STEM careers. Well versed in a range of scientific and engineering issues and disciplines, the application of scientific, statistical, and engineering methodology, and management of large programs.

Research expertise in imaging science and astrophysics, specializing in understanding the origin and nature of active galaxies and clusters of galaxies, the development and deployment of astronomical instrumentation and missions, and the development of algorithms for fMRI brain imaging. Over 175 refereed journal articles published and 10 PhD students mentored.

Volunteer Work: Habitat for Humanity (occasional), Lacrosse Coach

Languages: English – proficient (native language), Dutch – moderate proficiency,  
French – some proficiency

Security Clearance Top Secret (currently inactive)

#### Direct Leadership and Management Experience

- Director and Department Head, Chester F. Carlson Center for Imaging Science (CIS), Rochester Institute of Technology. CIS is a highly interdisciplinary academic education and research center, providing undergraduate education, post graduate PhD and masters programs and extensive research activities in a range of imaging related fields including remote sensing, detector development, biomedical imaging, color science, visual perception, astronomy, printing, and document reconstruction. CIS has ~50 faculty (half are full time faculty in the Department and half are faculty drawn from six colleges of the University with joint appointments in CIS), and over 40 research and administrative staff.
- Division Head, Engineering Software and Services Division, Space Telescope Science Institute. Responsible for the leadership and management of 140 software developers, testers, systems engineers, scientists and hardware engineers supporting the Hubble Space Telescope and the James Webb Space Telescope.
- Branch Chief/Team Lead. Management and Leadership responsibility for 25 PhD astronomers and technical staff supporting the development and operation of an advanced scientific instrument for the Hubble Space Telescope, the Space Telescope Imaging Spectrograph.
- Lead Archive Scientist –Provided scientific oversight of the HST archive development and deployment.

#### Direct Government Experience

- Diplomacy Science Policy Fellow, United States Dept. of State, Economics Bureau, Office of Agriculture, Biotechnology, and Textiles, sponsored by the American Institute of Physics through the American Association for the Advancement of Science.

#### Board Experience

- Trustee, Universities Space Research Association (USRA) (active), past member of the USRA Board Compensation and Strategic Planning Committees, current member of USRA Homeland and National Security Committee.
- Board of Governors, Great Lakes Research Consortium (active).
- VP, Board of Directors, Society for Imaging Science and Technology (term completed)

External Grant Support (complete list provided at end of resume)

- Grants totaling just under 5 Million won during past six years, ~40% as Principal Investigator. Currently just over 3 Million dollars of additional grants have been submitted and are pending review.
  - NYSTAR Faculty Development Grant, PI - \$729,000, Sensor Development
  - Scientific Research Grants, totaling over 3.3 Million
  - NSF Professional Masters Grant, “Science Master’s Program: Decision Support Technologies for Environmental Forecasting and Disaster Response”, ~\$660,000
  - An NSF Advance PAID Grant, “Establishing the Foundation for Future Organizational Reform and Transformation”, ~\$200,000
  - K12 Education and Outreach grants totaling ~\$800,000

External Gift Support

Over the past 6 year period, the Chester F. Carlson Center for Imaging Science has received 9 Million dollars of donations in support of our programs, students, and research, as recorded by the RIT Development Office.

**PROFESSIONAL TIMELINE**

<b>Timeline</b>	<b>Professional Career</b>	<b>Academic Career</b>
7/04 - present	Director, Center for Imaging Science, Rochester Institute of Technology	Full Professor, RIT, Endowed Xerox Chair since 2007.
11/02-6/04	Senior Science/Diplomacy Fellow, <i>US Dept. of State &amp;</i> American Institute of Physics Diplomacy Fellow Program	leave of absence from STScI
9/02 - ongoing		Co-I & Lead Operations Scientist, NIRCAM on JWST
10/02		Promoted to Full Astronomer, Space Telescope Science Institute ( <i>STScI</i> )
11/99 – 10/02	Division Head, Engineering & Software Services Division, <i>STScI</i>	
9/99 -11/99	Deputy, Science and Engineering Support Division, <i>STScI</i>	
1/99 - 9/99		Sabbatical @ <i>Princeton Univ.</i>
2/96 -12/98	Branch Chief, Spectrographs Team, <i>STScI</i>	Awarded tenure 1997 <i>STScI</i>
1/95 – 2/96	Space Telescope Imaging Spectrograph Scientist, Servicing Mission Office, <i>STScI</i>	
10/91 - 1/95	Archive Scientist, <i>STScI</i>	Promoted to Associate Astronomer 1994 <i>STScI</i>
9/90-10/91		Hubble Fellow, <i>Johns Hopkins University</i>
9/87-9/90		Postdoctoral Research Fellow, <i>Netherlands Foundation for Research in Astronomy</i>

#### Addresses for Employment History

- Carlson Center for Imaging Science, College of Science, **Rochester Institute of Technology**, 54 Lomb Memorial Drive, Rochester NY 14623
- Office of Agriculture, Biotechnology & Trade Policy, Economics & Business Bureau, **US Dept of State**, 2201 C Street NW, Washington DC 20520
- **Space Telescope Science Institute**, 3700 San Martin Dr., Baltimore, MD 21218
- **Johns Hopkins University**, Department of Physics and Astronomy, Bloomberg Center, Homewood Campus, Baltimore, MD 21218
- **Netherlands Foundation for Research in Astronomy**, P. O. Box 2, 7990 AA Dwingeloo, NL

#### Fellowships and Awards

- RIT Million Dollar Club– for securing more than 1 Million dollars in external grants and contracts (2005)
- American Institute of Physics – US State Department Fellowship 2002/2003
- STScI Individual Achievement Award, for Management and Leadership (2002)
- Rolex Achievement Award (1999) – given annually to one female and one male college lacrosse player for career achievements supporting society.
- NASA Excellence Award, Hubble Space Telescope Servicing Mission 3A (1999)
- STScI Group Achievement Award, Space Telescope Imaging Spectrograph Team, (1996)
- STScI Individual Achievement Award, Space Telescope Imaging Spectrograph (1996)
- STScI Group Achievement Award, Data Quality Project (1996)
- STScI Individual Achievement Award, Archive Development/Deployment (1993)
- STScI Group Achievement Award, Archive Development/Deployment (1993)
- Annie Jump Cannon Award, awarded annually to a young female astronomer for Scientific Excellence and Promise (1993)
- Junior Research Fellowship, National Radio Astronomy Observatory (1985)

#### Major Committee Memberships (over past 4 years)

- Chair, American Astronomical Society Awards Committee (active)
- Member, James Webb Space Telescope Science Advisory Committee (active)
- Member, Science Team, Near Infrared Camera, James Webb Space Telescope (active)
- Chair, National Optical Astronomy Extragalactic Time Allocation Committee (active)
- Member and Chair, National Astronomy and Ionospheric Center Arecibo Visiting Committee (term completed)
- Member and Chair, Associated Universities Incorporated (AUI), National Radio Astronomy Observatory Visiting Committee (term completed)
- Member, (i) Operations Advisory Committee and (ii) Science Advisory Group, Extended Very Large Array Telescope, National Radio Astronomy Observatory (term completed)

- Advisory Board, Program for Innovation and Entrepreneurship, RIT (term completed)
- Advisory Board, School of Mathematics and Statistics, RIT (term completed)
- Member, National Research Council of Canada, Peer Review of the Herzberg Institute of Astrophysics (completed)
- Member, Director's Review, Dark Energy Camera and Survey, Fermi National Laboratory (completed)
- Member, NASA Senior Review (completed)
- Member, Associated Universities Incorporated Operations Advisory Group (completed).

#### Formal Task Force and Working Group Activities (past 4 years)

- Chair, Rochester Institute of Technology Search Committee for Director of the new PhD program in Sustainability (active)
- Chair, University Academic Research Space Policy Definition Task Force, Rochester Institute of Technology (active).
- Partner, Partnerships for Plurality, Rochester Institute of Technology
- Member, Rochester Institute of Technology's Research Steering Committee (active)
- Member, Rochester Museum and Science Center K-12 Education Task Force (active)
- Member, Rochester Museum and Science Center Planetarium Task Force (term completed)
- Creator and Chair, College of Science Distinguished Speaker Series (active)
- Member, Rochester Institute of Technology's Freshman Summer Reading Group Task Force (term completed)
- Member, Rochester Institute of Technology President's Women's Advisory Council (term completed)
- Member, Rochester Institute of Technology, Provost Search Committee (term completed)
- Member, Rochester Institute of Technology, Creativity and Innovation Working Group (term completed)
- Member, Innovation Curriculum Working Group (term completed)

#### Curriculum Development, Teaching, Education and Public Outreach (past 4 years)

- Co-Developer, Innovative Freshman Experience; Build an Imaging Instrument, Rochester Institute of Technology
- Co-Developer and teacher, Frontiers of Science, general education course, Rochester Institute of Technology
- Collaborator and teacher, Honors Curriculum Collaborative Creativity and Innovation Program, "Social Networking", Rochester Institute of Technology.
- Co-Developer, new PhD Program at Rochester Institute of Technology, Astrophysical Science and Technology (initiated 9/2008), served as co-Director of this PhD program til 2009.

- Collaborator, Insight Lab for Science Outreach and Learning Research, Rochester Institute of Technology, regularly engages 5-15 undergraduates in research each semester
- Lead, “Reach for the Stars” science outreach program with the Girl Scouts of Western NY
- Collaborator – “Stepping Stones to Research” with local high school
- Collaborator – “Learning Science through Innovation and Creativity: Workshops for Families”
- Participant, yearly summer high school intern program sponsored by the Center for Imaging Science at Rochester Institute of Technology (active)
- Engaged with North Star Center in STEM Summer Program for prefreshman. The North Star Center exists primarily to improve the retention of underrepresented populations.
- Member, Curriculum Committee, Sustainability Institute, Rochester Institute of Technology
- Co-Developer, PhysCalc integrated bridge course, to prepare students for the university physics and calculus sequence, Rochester Institute of Technology.

#### Meetings co-Organized

- Analysis of Emission Lines, STScI May Symposium 1993
- Women in Astronomy, IAU General Assembly Session 1994
- NGC1068 – Galaxy, Starburst and AGN 1996
- Galaxies at the Highest Resolution, IAU Symposium 1999
- National Academy of Science workshop on Global Challenges and Directions for Agricultural Biotechnology, 2004
- The Extended Very Large Array Vision: Galaxies through Cosmic Time, 2008

#### Research

- Space and ground based observations of Active Galaxies, Galaxy Clusters, & High Redshift Systems; Analysis and interpretation of the origin and nature of activity in galaxies and the evolution of galaxies and galaxy clusters.
- Observational techniques: Optical and ultra-violet spectroscopy and imaging, radio interferometric imaging and spectroscopy, X-ray imaging.
- Engaged in activities to develop astronomical algorithms, hardware, and missions.
- Development of algorithm and statistical techniques for the analysis of fMRI brain imaging data used to study schizophrenia.
- Over 170 scientific papers published in refereed journals.
- Over 75 professional colloquia given at Universities and Scientific Conferences

#### Community Service

- Have served and continue to serve on numerous NASA & NSF scientific review panels.
- Served on Financial Review Committees for HST and for Chandra.
- Served on American Astronomical Society Employment Committee
- Serve as referee for professional journals on an ongoing basis

### Professional Societies

- American Astronomical Society
- American Association for the Advancement of Science
- American Institute of Physics
- International Astronomical Union
- SPIE

### Graduate Theses Supervised or Co-Supervised

- Jack Gallimore – “The Kinematics of the Near Nuclear Gas in Seyfert Galaxies” 1995, U. Maryland, PhD
- Ed Colbert – “Superwinds in Seyfert Galaxies” 1997, U. Maryland, PhD
- Chun Xu – “VLBA and ROSAT Imaging of Nearby Radio Galaxies: Towards Understanding the Nature of Radio Activity”, masters received, PhD on hold, U. Maryland
- Gijs Verdoes-Klein – “Nuclei of Nearby Radio Galaxies: Interplay Between Activity and Galaxy Structure” – 2001, Leiden, PhD
- Jacob Noel-Storr – “Kinematics of the Central Regions of Nearby Radio Galaxies: Constraining the Demographics of Black Holes” – 2004, Columbia Univ, NY, PhD
- David Russell – “Ultraviolet Observations of Radio Jets: Constraints on Jet Physics” – 2004, University of Manchester, PhD
- Avanti Tilak – “Chandra and VLBA Observations of Low Luminosity Radio Galaxies” –Physics, Johns Hopkins University, PhD
- George Privon – “Emission Line Imaging of Powerful Radio Galaxies”, Rochester Institute of Technology, Imaging Science, masters.
- Andrew Michael – “Classification of Schizophrenia Using fMRI Imaging” - Rochester Institute of Technology, Imaging Science, PhD
- Linpeng Cheng – “Interpixel Capacitance in IR Arrays for Astronomy - Implications for the James Webb Space Telescope”, Rochester Institute of Technology, Imaging Science, Masters
- Grant Tremblay – “The Evolution of Powerful Radio Galaxies”, Rochester Institute of Technology, Astrophysical Science and Technology, PhD, current.
- Siddharth Khullar – “Wavelets Applied to fMRI Data in the Analysis of Schizophrenia”, Imaging Science, PhD, current.
- David Sarroff - “A Design and Science Case for a 40 Million Dollar, 12 Meter Ground Based Telescope, Astrophysical Science and Technology, PhD, current.

### Postdocs Supervised or Co-Supervised

- Esther Zirbel
- Anton Koekemoer
- Marek Kukula
- Andre Martel
- Catherine Buchanan
- Preeti Kharb
- Jake Noel-Storr
- Rupal Mittal (active)

**Short Biography: Dr. Stefi Baum, Xerox Chair  
Director Chester F. Carlson Center for Imaging Science,  
Rochester Institute of Technology.**

August 27, 2010

Dr. Stefi Baum joined the Rochester Institute of Technology (RIT) in July 2004 as Professor and Director and Chairperson of the Chester F. Carlson Center for Imaging Science. The Carlson Center for Imaging Science is a highly interdisciplinary University Research and Education Center, dedicated to pushing the frontiers of imaging in all its forms and uses, with research programs in remote sensing, sensor and detector development, algorithm development, vision and perception, astrophysical science and technology, biomedical imaging, print science and engineering, document reconstruction and color science. Through education leading to BS, Masters, or PhD degrees, the Center produces the next generation of educators and researchers who develop and deploy imaging systems to answer fundamental scientific questions, monitor and protect our environment, help keep our nation secure, aid medical researchers and practitioners in their quest to conquer disease, and improve humanity's standard of living through innovations that expand human perception and understanding.

Dr. Baum joined RIT after serving one and a half years as an American Institute of Physics Science Diplomacy Fellow at the U.S. Department of State where she worked to promote agricultural biotechnology in developed and developing countries. Before that she spent 13 years at the Space Telescope Science Institute (STScI) located at the Homewood Campus of Johns Hopkins University in Baltimore. STScI is the science operations center for the Hubble Space Telescope and the next generation space telescope, the James Webb Space Telescope (JWST). While at STScI, Dr. Baum was most recently the Head of the Engineering and Software Services Division where she led up to 140 scientists, engineers, and computer scientists responsible for the development and maintenance work for the science ground systems of HST and JWST. Earlier, she led the science operations center's development and deployment of a major astronomical instrument, the Space Telescope Imaging Spectrograph. Prior to that, she served as lead scientist on the development of the Hubble Space Telescope archive, the first fully functional pipeline and on-line archive for astronomical data.

Dr. Baum earned a BA in physics with honors from Harvard University and a PhD in astronomy from the University of Maryland. Her personal research focuses in two areas: (i) the study of activity in galaxies and its relation to galaxy evolution and (ii) the development of image processing and statistical algorithms applied to functional magnetic resonance brain imaging for the diagnosis of schizophrenia. Dr. Baum is active in the development of new mission concepts and has published 175 papers in refereed journals; in the past six years 12 of these publications were with undergraduate student coauthors. Dr. Baum is also very active in education and public outreach and is



committed to the engagement of youth and the public in science, technology, engineering, and mathematics.

## COMPLETE BIBLIOGRAPHY, STEFI ALISON BAUM

### Articles in Refereed Journals

(Note: In the past six years since joining academia, I have published 12 referred journal articles with undergraduates - in 3 of these papers the undergraduate was first author. The undergraduate authors (starting in 2006) are indicated with a \*.)

1. **S.A. Baum** and S. Hoban, "A Search for the Millimeter Wave Transitions of CO<sup>+</sup> in Comet P/Halley," *Icarus*, 67, 515 (1986).
2. T.M. Heckman, E.P. Smith, **S.A. Baum**, W.J.M. van Breugel, G.K. Miley, G.D. Illingworth, G.D. Bothun, and B. Balick, "Galaxy Collisions and Mergers: The Genesis of Very Powerful Radio Sources," *Astrophysical Journal*, 311, 526 (1986).
3. S. Hoban and **S.A. Baum**, "A VLA Search For 2 cm Continuum Emission From Comet P/Halley," *Icarus*, 70, 264 (1987).
4. R. Elston and **S.A. Baum**, "VLA Observations of W50: A Study of the Interaction of SS433 with its Environment," *Astronomical Journal*, 94, 1633 (1987).
5. C.P. O'Dea and **S.A. Baum**, "A Search for OH Absorption in NGC 1275," *Astronomical Journal*, 94, 1476 (1987).
6. **S.A. Baum**, T. Heckman, A.H. Bridle, W. van Breugel, and G.K. Miley, "Extended Emission Line Gas in Radio Sources: Broad Band Optical Imaging, Narrow Band Optical Imaging, and Radio Imaging of a Representative Sample," *Astrophysical Journal Supplements*, 68, 643 (1988).
7. **S.A. Baum** and T. Heckman, "Extended Optical Line Emitting Gas in Powerful Radio Galaxies: Statistical Properties and Physical Conditions," *Astrophysical Journal*, 336, 681 (1989).
8. **S.A. Baum** and T. Heckman, "Extended Optical Line Emitting Gas in Powerful Radio Galaxies: What is the Radio Emission-Line Connection?" *Astrophysical Journal*, 336, 702 (1989).
9. T.M. Heckman, **S.A. Baum**, W.J.M. van Breugel, and P. McCarthy, "Dynamical, Physical, and Chemical Properties of Emission-Line Nebulae in Cooling Flows," *Astrophysical Journal*, 338, 48 (1989).
10. C.P. O'Dea, **S.A. Baum**, and G.B. Morris, "CCD Observations of GigaHerz-Peaked-Spectrum Radio Sources," *Astronomy and Astrophysics Supplements*, 82, 261 (1990).
11. **S.A. Baum**, C.P. O'Dea, D.W. Murphy, and A.G. de Bruyn, "01801+388: A Compact Double Source with Surprising Properties," *Astronomy and Astrophysics*, 232, 19 (1990).
12. M.V. Penston *et al.*, "The Extended Narrow Line Region of NGC4151 I-Emission Line Ratios and Their Implications," *Astronomy and Astrophysics*, 236, 53 (1990).

13. C. Stanghellini, **S.A. Baum**, C.P. O’Dea, G.B. Morris, “Extended Radio Emission Associated with GigaHerz-Peaked-Spectrum Radio Sources,” *Astronomy and Astrophysics*, 233, 379 (1990).
14. **S.A. Baum**, T.M. Heckman, W. van Breugel, “Long Slit Optical Spectroscopy of Emission Line Nebulae in Radio Galaxies: The Data,” *Astrophysics Journal Supplements*, 74, 389 (1990).
15. C.P. O’Dea, **S.A. Baum**, C. Stanghellini, G.B. Morris, A.R. Patnaik, Gopal-Krishna, “Multifrequency VLA Observations of GHz-Peaked-Spectrum Radio Cores,” *Astronomy and Astrophysics Supplements*, 84, 549 (1990).
16. A.H. Bridle, **S.A. Baum**, R. Fanti, P. Parma, E.B. Fomalont and R.D. Ekers, “WSRT and VLA Observations of the Radio Galaxy B2 0326+39 at 0.6, 1.5 and 5 GHz,” *Astronomy and Astrophysics*, 245, 371 (1991).
17. N.E. Kassim, **S.A. Baum**, K.W. Weiler, “A New Look at the ‘Jet’ in the CTB37A/B SNR Complex,” *Astrophysical Journal*, 374, 212 (1991).
18. **S.A. Baum** and C.P. O’Dea, “Multifrequency VLA Observations of PKS 0745-191: the Archetypal ‘Cooling Flow’ Radio Source?” *Monthly Notices of the Royal Astronomical Society*, 250, 737 (1991).
19. C.P. O’Dea, **S.A. Baum**, and C. Stanghellini, “What are the GHz-Peaked-Spectrum Radio Sources?” *Astrophysical Journal*, 380, 66 (1991).
20. **S.A. Baum**, T.M. Heckman, W. van Breugel, “Long Slit Optical Spectroscopy of Emission Line Nebulae in Radio Galaxies: Interpretation,” *Astrophysical Journal*, 389, 208 (1992).
21. A.R.S. Black, **S.A. Baum**, J.P. Leahy, R.A. Perley, J.M. Riley, and P.A.G. Scheuer, “A Study of FR II Radio Galaxies with  $z < 0.15$ ,” *Monthly Notices of the Royal Astronomical Society*, 256, 186 (1992).
22. **S.A. Baum**, “What We Learn About Cooling Flows Through the Study of the  $10^4$  K Gas in Clusters,” *PASP*, 104, 848 (1992).
23. C.P. O’Dea, **S.A. Baum**, C. Stanghellini, A. Dey, W. van Breugel, S. Deustua, and E.P. Smith, “Radio and Optical Observations of 0218+357: The Smallest Einstein Ring?” *Astronomical Journal*, 104, 1320 (1992).
24. A. Pedlar, D. Longley, M. Kukula, T.B. Muxlow, D.J. Axon, **S.A. Baum**, C.P. O’Dea, and S.W. Axon, “The Radio Nucleus of NGC 4151 at 5 and 8 GHz,” *Monthly Notices of the Royal Astronomical Society*, 263, 471 (1993).
25. C. Stanghellini, C.P. O’Dea, **S.A. Baum**, and E. Laurikainen, “Optical CCD Imaging of GHz Peaked Spectrum Radio Sources,” *Astrophysical Journal Supplements*, 88, 1 (1993).
26. **S.A. Baum**, C.P. O’Dea, D. Dallacassa, A.G. de Bruyn, A. Pedlar, “Kiloparsec-Scale Radio Emission in Seyfert Galaxies; Evidence for Starburst-Driven Superwinds?” *Astrophysical Journal*, 419, 553 (1993).
27. C.P. O’Dea, **S.A. Baum**, P.R. Maloney, L.J. Tacconi, W.B. Sparks, “Constraints on Molecular Gas in Cooling Flows and Powerful Radio Galaxies,” *Astrophysical Journal*, 422, 467 (1994).
28. T.M. Heckman, C.P. O’Dea, **S.A. Baum**, and E. Laurikainen, “Obscuration, Orientation, and the Infrared Properties of Radio-loud Active Galaxies,” *Astrophysical Journal*, 428, 65 (1994).

29. J. Gallimore, **S.A. Baum**, C.P. O’Dea, E. Brinks, and A. Pedlar, “Neutral Hydrogen Absorption in NGC 1068 and NGC 3079,” *Astrophysical Journal Letters*, 422, L13 (1994).
30. C.P. O’Dea, **S.A. Baum**, and J.F. Gallimore, “Detection of Extended HI Absorption towards PKS 2322-123 in Abell 2597,” *Astrophysical Journal*, 436, 669 (1994).
31. A. Robinson, B. Vila-Vilaro, D. Axon, E. Perez, S. Wagner, **S.A. Baum**, C. Boisson, F. Durret, R. Gonzalez-Delgado, A. del Olmo, A. Pedlar, M.V. Penston, J. Perea, I. Perez-Fournon, J.M. Rodriguez-Espinosa, C. Tadhunter, R.J. Terlevech, S.W. Unger, M.J. Ward, “The Extended Narrow Line Region of NGC 4151. II. Spatial Variations of the Emission Line Intensities,” *Astronomy and Astrophysics*, 291, 351 (1994).
32. M. Kukula, A. Pedlar, S. Unger, **S.A. Baum**, and C.P. O’Dea, “8.4 GHz VLA Observations of the CFA Seyfert Sample,” *Astrophysics and Space Science*, 216 (1995).
33. C.P. O’Dea, J.F. Gallimore, **S.A. Baum**, “A High Spectral Resolution VLA Search for HI Absorption towards A496, A1795, A2584,” *Astronomical Journal*, 109, 26 (1995).
34. E.P. Smith, C.P. O’Dea, and **S.A. Baum**, “The Mpc Scale Environment of BL Lac Objects,” *Astrophysical Journal*, 441, 113 (1995).
35. C.G. Mundell, A. Pedlar, **S.A. Baum**, C.P. O’Dea, J.F. Gallimore, E. Brinks, “MERLIN Observations of Neutral Hydrogen Absorption in the Seyfert Nucleus of NGC4151,” *Monthly Notices of the Royal Astronomical Society*, 272, 355 (1995).
36. B. Vila-Vilaro, A. Robinson, E. Perez, D. Axon, **S.A. Baum**, G. Gonzalez-Delgado, A. Pedlar, I. Perez-Fournon, J. Perry, and C. Tadhunter, “Circumnuclear Gas Flows in NGC4151,” *Astronomy and Astrophysics*, 302 (1995).
37. E. Zirbel and **S.A. Baum**, “On the FRI/FRII Dichotomy in Powerful Radio Sources: Analysis of their Emission Line and Radio Luminosities,” *Astrophysical Journal*, 448, 548 (1995).
38. **S.A. Baum**, E. Zirbel, and C.P. O’Dea, “Towards Understanding the Fanaroff-Riley Dichotomy in Radio Source Morphology and Power,” *Astrophysical Journal*, 451, 88 (1995).
39. M.J. Kukula, A. Pedlar, **S.A. Baum**, C.P. O’Dea, “High Resolution Observations of the CFA Seyfert Sample I: The Observations,” *Monthly Notices of the Royal Astronomical Society*, 276 (1995).
40. W. Sparks, D. Golombek, **S.A. Baum**, J. Biretta, S. de Koff, F. Macchetto, P. McCarthy, and G. Miley, “Discovery of an Optical Synchrotron Jet in 3C78,” *Astrophysical Journal Letters*, 450, L55 (1995).
41. C. Sarazin, **S.A. Baum**, C.P. O’Dea, “Unusual Radio Structures in the Cooling Flow Cluster 2A0335+096,” *Astrophysical Journal*, 451, 125 (1995).
42. A.G. de Bruyn, C.P. O’Dea, and **S.A. Baum**, “WSRT Detection of HI Absorption in the  $z=3.4$  Damped Lyman Alpha System in PKS 0201+113,” *Astronomy and Astrophysics*, 305, 450 (1996).

43. C.P. O’Dea, D.M. Worrall, **S.A. Baum**, C. Stanghellini, “A ROSAT Search for Clusters Around Three Powerful Radio Galaxies at Redshifts  $0.1 \lesssim z \lesssim 0.25$ ,” *Astronomical Journal*, 111, 92 (1996).
44. J.F. Gallimore, **S.A. Baum**, C.P. O’Dea, E. Brinks, and A. Pedlar, “H<sub>2</sub>O and OH Masers as Probes of the Obscuring Torus in NGC1068,” *Astrophysical Journal*, 462, 740 (1996).
45. J.F. Gallimore, **S.A. Baum**, C.P. O’Dea, A. Pedlar, “The Sub-arcsecond Radio Structure in NGC 1068: I. Observations and Results,” *Astrophysical Journal*, 458, 136 (1996).
46. J.F. Gallimore, **S.A. Baum**, C.P. O’Dea, “The Sub-arcsecond Radio Structure in NGC 1068: II. Implications for the Central Engine and Unifying Schemes,” *Astrophysical Journal*, 464, 198 (1996).
47. E.J.M. Colbert, **S.A. Baum**, J.F. Gallimore, C.P. O’Dea, M.D. Lehnert, Z.I. Tsvetanov, J.S. Mulchaey, and S. Caganoff, “Large Scale Outflows in Edge-on Seyfert Galaxies: I. Optical Emission-line Imaging and Optical Spectroscopy,” *Astrophysical Journal Supplements*, 105, 75 (1996).
48. M.J. Kukula, A.J. Holloway, A. Pedlar, J. Meaburn, J.A. Lopez, D.J. Axon, R.T. Schillizzi, and **S.A. Baum**, “Unusual Radio and Optical Structures in the Seyfert Galaxy Mkn 6,” *Monthly Notices of the Royal Astronomical Society*, 280, 1283 (1996).
49. C. Stanghellini, M. Bondi, D. Dallacasa, C.P. O’Dea, **S.A. Baum**, R. Fanti, C. Fanti, “The Radio Source OQ208: Parsec Scale Morphology and Spectral Properties,” *Astronomy and Astrophysics*, 318, 376-382 (1997).
50. C.P. O’Dea, C. Stanghellini, **S.A. Baum**, S. Charlot, “On the Host Galaxies of the GHz Peaked Spectrum Radio Sources,” *Astrophysical Journal*, 470, 806 (1996).
51. E.J.M. Colbert, **S.A. Baum**, J.F. Gallimore, C.P. O’Dea, J.A. Christensen, “Large-Scale Outflows in Edge-on Seyfert Galaxies: II. Kiloparsec-Scale Radio Continuum Emission,” *Astrophysical Journal*, 467, 551 (1996).
52. **S.A. Baum**, C.P. O’Dea, S. de Koff, W. Sparks, J. Hayes, M. Livio, D. Golombek, “HST Observations of Obscuration Rings in Hercules A: Implications for Energy Transport in Powerful Radio Galaxies,” *Astrophysical Journal Letters*, 465, L5 (1996).
53. S. de Koff, **S.A. Baum**, W. Sparks, J. Biretta, D. Golombek, F. Machetto, P. McCarthy, G. Miley, “HST Snapshot Survey of 3CR Radio Sources I: Intermediate Redshifts,” *Astrophysical Journal Supplements*, 107, 621 (1996).
54. P. McCarthy, **S.A. Baum**, H. Spinrad, “Emission Line Properties of 3CR Radio Galaxies II: Velocity Fields in the Extended Emission Lines,” *Astrophysical Journal Supplements*, 106, 281 (1996).
55. C.P. O’Dea and **S.A. Baum**, “Constraints on Radio Source Evolution from the GigaHertz Peaked Spectrum and Compact Steep Spectrum Radio Sources,” *Astronomical Journal*, 113, 148 (1997).
56. **S.A. Baum**, C.P. O’Dea, *et al.* “HST and MERLIN Observations of 3C264 – A Laboratory for Jet Physics and Unified Schemes,” *Astrophysical Journal*, 483, 178 (1997).
57. W. H. de Vries, C.P. O’Dea, **S.A. Baum**, W.B. Sparks, J. Biretta, S. de Koff, D. Golombek, M.D. Lehnert, F. Macchetto, P. McCarthy, and G.K. Miley, “Hubble

- Space Telescope Imaging of Compact Steep Spectrum Radio Sources,” *Astrophysical Journal Supplements*, 110, 191-212 (1997).
58. J.F. Gallimore, **S.A. Baum**, and C.P. O’Dea, “A Direct Image of the Obscuring Disk Surrounding the Active Galactic Nucleus of NGC 1068,” *Nature*, 388, 852-854 (1997).
  59. J.F. Gallimore, **S.A. Baum**, C.P. O’Dea, “A Direct Image of the Inner Torus of NGC 1068,” *Astrophysics and Space Science*, 248, 253 (1997).
  60. J. Bland-Hawthorn, J.F. Gallimore, L.J. Tacconi, E. Brinks, **S.A. Baum**, R. Antonucci, G. Cecil, “The Ringberg Standards for NGC 1068,” *Astrophysics and Space Science*, 249, 9 (1997).
  61. C. Stanghellini, C.P. O’Dea, **S.A. Baum**, D. Dallacasa, R. Fanti, C. Fanti, “A VLBI Study of GHz –Peaked-Spectrum Radio Sources: I. VLBI Images at 6cm,” *Astronomy and Astrophysics*, 325, 943-953 (1997).
  62. P. McCarthy, G. Miley, S. de Koff, **S.A. Baum**, W. Sparks, D. Golombek, J. Biretta, F. Macchetto, “Hubble Space Telescope Snapshot Survey of the 3CR Radio Source Counterparts: II. Radio Galaxies with  $z > 0.5$ ,” *Astrophysical Journal Supplements*, 112, 415 (1997).
  63. E.J.M. Colbert, **S.A. Baum**, C.P. O’Dea, S. Veilleux, “Large-Scale Outflows in Edge-on Seyfert Galaxies: III. Kiloparsec-Scale Soft X-ray Emission,” *Astrophysical Journal*, 496, 786-796 (1998).
  64. A. Martel, W. Sparks, F. Macchetto, **S.A. Baum**, J. Biretta, D. Golombek, P. McCarthy, S. de Koff, G. Miley, “New Optical Fields and Candidates of 10 3C Radio Sources: I. The R-Band Images,” *Astronomical Journal*, 115, 1348, (1998).
  65. A. Martel, W. Sparks, D. Macchetto, J. Biretta, **S.A. Baum**, D. Golombek, P. McCarthy, S. de Koff, G. Miley, “Discovery of an Optical Synchrotron Jet in 3C15,” *Astrophysical Journal*, 496, 203 (1998).
  66. E.L. Zirbel and **S.A. Baum**, “The Ultra-Violet Continuum Emission of Radio Galaxies, I. Description of Sources from the HST Archives,” *Astrophysical Journal Supplements*, 114, 177 (1998).
  67. **S.A. Baum**, C.P. O’Dea, G. Giovannini, J. Biretta, W.B. Cotton, S. de Koff, L. Feretti, D. Golombek, L. Lara, F.D. Macchetto, G.K. Miley, W.B. Sparks, T. Venturi, S.S. Komissarov, “Hubble Space Telescope and MERLIN Observations of 3C 264—A Laboratory for Jet Physics and Unified Schemes,” *Astrophysical Journal*, 492, 854 (1998)
  68. A. Schultz, F. Allard, M. Clampin, M. McGrath, F.C. Bruhweiler, J.A. Valenti, P. Plait, S. Hulbert, **S.A. Baum**, B. Woodgate, C. Bowers, R. Kimble, S. Maran, W. Moos, F. Roesler, “First Results from the Space Telescope Imaging Spectrograph: Optical Spectra of Gliese 229B,” *Astrophysical Journal*, 492L, 181, (1998).
  69. K.S. Sahu, R. Shaw, M.E. Kaiser, **S.A. Baum**, H. Ferguson, J. Hayes, T. Gull, R. Hill, J. Hutchings, R. Kimble, P. Plain, B. Woodgate, “Imaging and Spectroscopy of Arcs around the Most Luminous X-Ray Cluster RX J1237.5-1145,” *Astrophysical Journal*, 492L, 125 (1998).
  70. J.B. Hutchings, D.M. Crenshaw, M.E. Kaiser, S.B. Kraemer, D. Weistrop, **S.A. Baum**, C.W. Bowers, L. Feiberg, R. Green, T. Gull, G. Hartig, G. Hill, D.

- Lindler, “Gas Cloud Kinematics Near the Nucleus of NGC 4151,” *Astrophysical Journal*, 492L, 115 (1998).
71. G.A. Bower, R.F. Green, A. Danks, T. Gull, S. Heap, J. Hutchings, C. Joseph, M.E. Kaiser, R. Kimble, S. Kraemer, D. Weistrop, B. Woodgate, D. Lindler, R. Hill, E. Malumuth, **S.A. Baum**, V. Sarajedini, T. Heckman, A. Wilson, D. Richstone, “Kinematics of the Nuclear Ionized Gas in the Radio Galaxy M84 (NGC 4374),” *Astrophysical Journal*, 492L, 111 (1998).
  72. J.P. Gardner, R. Hill, **S.A. Baum**, H. Collins, H. Ferguson, R. Fosbury, R. Gillilan, R. Green, T. Gull, S. Heap, E. Malumuth, A. Micol, N. Pirzkal, J. Sandoval, E. Tolstoy, J. Walsh, B. Woodgate, “The STIS Parallel Survey: Introduction and First Results,” *Astrophysical Journal*, 492L, 99 (1998).
  73. R. Kimble, *et al.* “The On-Orbit Performance of the Space Telescope Imaging Spectrograph,” *Astrophysical Journal*, 492L, 83 (1998).
  74. J.B. Hutchings, **S.A. Baum**, D. Weistrop, C. Nelson, M.E. Kaiser, R.F. Gelderman, “Spatially Resolved Spectra of 3C Galaxy Nuclei,” *Astronomical Journal*, 116, 643 (1998).
  75. W.H. de Vries, C.P. O’Dea, E. Perlman, **S.A. Baum**, M.D. Lehnert, J. Stocke, T. Rector, and R. Elston, “Near-IR Imaging of GHz Peaked Spectrum, Compact Steep Spectrum, and Large Scale FR II Radio Galaxies,” *Astrophysical Journal*, 503, 138 (1998).
  76. W.H. de Vries, C.P. O’Dea, **S.A. Baum**, E. Perlman, M.D. Lehnert, and P.D. Barthel, “Hosts of Powerful Radio Galaxies in the Near-Infrared: Implications for Radio Source Evolution,” *Astrophysical Journal*, 503, 156 (1998).
  77. A.M. Koekemoer, C.P. O’Dea, **S.A. Baum**, C.L. Sarazin, F.N. Owen, and M.J. Ledlow, “Constraints on Ultraviolet Absorption in the Intracluster Medium of Abell 1030,” *Astrophysical Journal*, 508, 608 (1998).
  78. M.R. Swain, A.H. Bridle, **S.A. Baum**, “Internal Structure of the Jets in 3C353,” *Astrophysical Journal Letters*, 507L, 29 (1998).
  79. T. Treu, M. Stiavelli, A.R. Walker, R.E. Williams, **S.A. Baum**, G. Bernstein, B.S. Blacker, C.M. Carollo, S. Casertano, M.E. Dickinson, D.F. Demello, H.C. Ferguson, A.S. Fruchter, R.A. Lucas, J. MacKenty, P. Madau, M. Postman, “An Extremely Red  $r^{1/4}$  Galaxy in the Test Image of the Hubble Deep Field South,” *Astronomy and Astrophysics*, 340L, 10 (1998).
  80. C. Stanghellini, C.P. O’Dea, D. Dallacasa, **S.A. Baum**, R. Fanti, and C. Fanti, “A Complete Sample of GHz-Peaked-Spectrum Radio Sources and Its Radio Properties,” *Astronomy and Astrophysics Supplements*, 131, 303 (1998).
  81. C.L. Sarazin, A.M. Koekemoer, **S.A. Baum**, C.P. O’Dea, F.N. Owen, and M.W. Wise, “X-ray Properties of B2 1028+313: A Quasar at the Center of the Abell Cluster A1030,” *Astrophysical Journal*, 510, 90 (1999).
  82. C.P. O’Dea, W. de Vries, J. Biretta, **S.A. Baum**, “Hubble Space Telescope and VLA Observations of Two Continuum Knots in the Jet of 3C380,” *Astronomical Journal*, 117, 1143 (1999).
  83. L. Lara, L. Feretti, G. Giovannini, **S.A. Baum**, W. Cotton, C.P. O’Dea, T. Venturi, “The Radio-Optical Jet in NGC 3862 from Parsec to Subkiloparsec Scales,” *Astrophysical Journal*, 513, 197 (1999).

84. S. Savaglio, H. Ferguson, T. Brown, B. Espey, K. Sahu, **S.A. Baum**, C. Carollo, M.E. Kaiser, M. Stiavelli, R. Williams, J. Wilson, "The Lyman Alpha Forest of the Quasar in the Hubble Deep Field South," *Astrophysical Journal Letters*, 515L, 5 (1999).
85. M.J. Kukula, J.S. Dunlop, R.J. McLure, **S.A. Baum**, C.P. O'Dea, and D.H. Hughes, "Groundbased and HST Optical-Infrared Studies of Quasar Host Galaxies," in 'The AGN/Normal Galaxy Connection,' in Proceedings of the 32<sup>nd</sup> COSPAR Scientific Assembly, ed. H.R. Schmitt, published in *Advances in Space Research*, 23, 1131-1138 (1999).
86. A. Martel, **S.A. Baum**, W.B. Sparks, E. Wyckoff, J.A. Biretta, D. Golombek, F.D. Macchetto, S. de Koff, P.J. McCarthy, G.K. Miley, "Hubble Space Telescope Snapshot Survey of 3CR Radio Source Counterparts III: Radio Galaxies with  $z < 0.01$ ," *Astrophysical Journal Supplements*, 122, 81 (1999).
87. R.J. McLure, J.S. Dunlop, M.J. Kukula, **S.A. Baum**, C.P. O'Dea, and D.H. Hughes, "A Comparative HST Imaging Study of the Hosts of Radio-Quiet, Radio-Loud Quasars and Radio Galaxies: Paper I," *Monthly Notices of the Royal Astronomical Society*, 308, 377 (1999).
88. J.F. Gallimore, **S.A. Baum**, C.P. O'Dea, A. Pedlar, E. Brinks, "Neutral Hydrogen (21 cm) Absorption in Seyfert Galaxies: Evidence for Free-Free Absorption and Sub-Kiloparsec Gaseous Disks," *Astrophysical Journal*, 524, 684 (1999).
89. G.A. Verdoes Kleijn, **S.A. Baum**, P.T. de Zeeuw, and C.P. O'Dea, "Hubble Space Telescope Observations of Nearby Radio-Loud Early-Type Galaxies," *Astronomical Journal*, 118, 2592 (1999).
90. A.M. Koekemoer, C.P. O'Dea, C.L. Sarazin, B.R. McNamara, M. Donahue, G.M. Voit, **S.A. Baum**, J.F. Gallimore, "The Extended Blue Continuum and Line Emission around the Central Radio Galaxy in Abell 2597," *Astrophysical Journal*, 525, 621 (1999).
91. W.H. de Vries, C.P. O'Dea, **S.A. Baum**, P.D. Barthel, "Optical-Radio Alignment in Compact Steep-Spectrum Radio Sources," *Astrophysical Journal*, 526, 27 (1999).
92. M.D. Lehnert, G.K. Miley, W.B. Sparks, **S.A. Baum**, J. Biretta, D. Golombek, S. de Koff, F.D. Macchetto, P.J. McCarthy, "Hubble Space Telescope Snapshot Survey of 3CR Quasars: The Data," *Astrophysical Journal Supplements*, 123, 351 (1999).
93. C. Xu, M. Livio, **S.A. Baum**, "Radio-Loud and Radio-Quiet Active Galactic Nuclei," *Astronomical Journal*, 118, 1169 (1999).
94. C.P. O'Dea, W.M. de Vries, D.M. Worrall, **S.A. Baum**, A. Koekemoer, "ASCA Observations of the Gigahertz-Peaked Spectrum Radio Galaxies 1345+125 and 2352+495," *Astronomical Journal*, 119, 478 (2000).
95. J.P. Gardner, **S.A. Baum**, T.M. Brown, *et al.*, "The Hubble Deep Field South: STIS Imaging," *Astronomical Journal*, 119, 486 (2000).
96. A. Thean, A. Pedlar, M.J. Kukula, **S.A. Baum**, C.P. O'Dea, "High-Resolution Radio Observations of Seyfert Galaxies in the Extended  $12\mu\text{m}$  Sample – I. The Observations," *Monthly Notices of the Royal Astronomical Society*, 314, 573 (2000).

97. S. de Koff, P. Best, **S.A. Baum**, W. Sparks, H. Rottgering, G. Miley, D. Golombek, F.D. Macchetto, A. Martel, "The Dust-Radio Connection in 3CR Radio Galaxies," *Astrophysics Journal Supplements*, 129, 33 (2000).
98. C. Fanti, F. Pozzi, R. Fanti, **S.A. Baum**, C.P. O'Dea, M. Bremer, D. Dallacasa, H. Falcke, T. de Graauw, A. Marecki, G. Miley, H. Rottgering, R.T. Schilizzi, I. Snellen, R.E. Spencer, C. Stanghellini, "ISO Observations of a Sample of Compact Steep Spectrum and GHz Peaked Spectrum Radio Galaxies," *Astronomy and Astrophysics*, 358, 499 (2000).
99. **S.A. Baum**, Patrick J. McCarthy, "Emission-Line Properties of 3CR Radio Galaxies, III. Origins and Implications of the Velocity Fields," *Astronomical Journal*, 119, 2634 (2000).
100. S. de Koff, P. Best, **S.A. Baum**, W. Sparks, H. Röttering, G. Miley, D. Golmbeck, F. Macchetto, A. Martel, "The Dust-Radio Connection in 3CR Radio Galaxies," *Astrophysics Journal Supplements*, 129, 33 (2000).
101. W. Sparks, **S.A. Baum**, J. Biretta, F.D. Macchetto, A.R. Martel. "Face-on Dust Disks in Galaxies with Optical Jets," *Astrophysics Journal*, 542, 667 (2000).
102. A. R. Martel, N. J. Turner, W. B. Sparks, **S.A. Baum**, "Nuclear Gas and Dust Disks in Nearby 3CR Elliptical Galaxies," *Astrophysics Journal Supplements*, 130, 267 (2000).
103. C. Xu, **S.A. Baum**, C. P. O'Dea, J.M. Wrobel, J.J. Condon, VLBA Observations of a Sample of Nearby FR I Radio Galaxies," *Astronomical Journal*, 120, 2950 (2000).
104. R.E. Williams, **S.A. Baum**, L.E. Bergeron, N. Bernstein, B.S. Blacker, B.J. Boyle, T.M. Brown, C.M. Carollo, S. Casertano, R. Covarrubias, D.F. de Mello, M.E. Dickinson, B.R. Espey, H.C. Ferguson, A. Fruchter, J.P. Gardner, A. Gonnella, J. Hayes, P.C. Hewett, I. Heyer, R. Hook, M., Irwin, D. Jones, M.E. Kaiser, Z. Levay, A. Lubenow, R.A. Lucas, J. Mack, J.W. MacKenty, P. Madau, R.B. Makidon, C.L. Martin, L. Mazzuca, M. Mutchler, R.P. Norris, B. Perriello, M.M. Phillips, M. Postman, P. Royle, K. Sahu, S. Savaglio, A. Sherwin, T.E. Smith, M. Stiavelli, N.B. Suntzeff, H.I Teplitz, R. P. van der Marel, A. R. Walker, R.J. Weymann, M.S. Wiggs, G.M. Williger, J. Wilson, N. Zacharias, D.R. Zurek, "The Hubble Deep Field South: Formulation of the Observing Campaign," *Astronomical Journal*, 120, 2735 (2000).
105. C.P. O'Dea, A. M. Koekemoer, **S.A. Baum**, W. B. Sparks, A.R. Martel, M.G. Allen, F.D. Macchetto, G.K. Miley, 3C236: Radio Source, Interrupted? *Astronomical Journal*, 121, 1915 (2001).
106. J.F. Gallimore, C. Henkel, **S.A. Baum**, I.S. Glass, M.J. Claussen, M.A. Prieto, A. Von Kapherr. "The Nature of the Nuclear H<sub>2</sub>O Masers of NGC 1068: Reverberation and Evidence for a Rotating Disk Geometry," *Astrophysics Journal*, 556, 694, (2001).
107. A. Thean, A. Pedlar, M.J. Kukula, **S.A. Baum**, C.P. O'Dea, "High Resolution Radio Observations of Seyfert Galaxies in the Extended 12- $\mu$ m Sample – II. The Properties of Compact Radio Components," *Monthly Notice of the Royal Astronomical Society*, 325, 737, (2001).
108. B. R. McNamara, M.W. Wise, P.E.J. Nulsen, L. P. David, C. L. Carilli, C. P. Sarazin, C. P. O'Dea, J. Houck, M. Donahue, **S.A. Baum**, M. Voit, R.W.



- O'Connell, A. Koekemoer; "Discovery of Ghost Cavities in the X-Ray Atmosphere of Abell 2597" *Astrophysics Journal*, 562, 149, (2001).
109. C. Stanghellini, D. Dallacasa, C.P. O'Dea, **S.A. Baum**, R. Fanti, C. Fanti, "VLBA observations of GHz-Peaked-Spectrum radio sources at 15 GHz" *Astronomy and Astrophysics*, 379, 870-871 (2001).
  110. M.J. Kukula, J.S. Dunlop, R.J. McLure, L. Miller, W.J. Percival, **S.A. Baum**, C.P. O'Dea, "A NICMOS imaging study of high-z quasar host galaxies", *Monthly Notices of the Royal Astronomical Society*, 326, 1533-1546 (2001).
  111. C. Stanghellini, D. Dallacasa, C.P. O'Dea, **S.A. Baum**, R. Fanti, C. Fanti, "VLBA observations of GHz-Peaked-Spectrum radio sources at 15 GHz" *Astronomy and Astrophysics*, 377, 377-388 (2001).
  112. A.J. Martel, W.B. Sparks, M.G. Allen, A.M. Koekemoer, **S.A. Baum**, "Discovery of a Star Formation Region in Abell 2052," *The Astronomical Journal*, 123, 1357 (2002).
  113. G.A. Verdoes Kleijn, **S.A. Baum**, P.T. de Zeeuw, C.P. O'Dea, "Core Radio and Optical Emission in the Nuclei of Nearby FRI Radio Galaxies," *The Astronomical Journal*, 123, 1334 (2002).
  114. M.A. Allen, W.B. Sparks, A.M. Koekemoer, A.R. Martel, C.P. O'Dea, **S.A. Baum**, M. Chiaberge, F.D. Macchetto, G.K. Miley, "Ultraviolet Hubble Space Telescope Snapshot Survey of 3CR Radio Source Counterparts at Low Redshift," *Astrophysics Journal Supplements*, 139, 411 (2002).
  115. C. Stanghellini, D. Dallacasa, C.P. O'Dea, **S.A. Baum**, R. Fanti, C. Fanti, "A Complete Sample of Young Radio Sources," *New Astronomy Reviews*, 46, No. 2-7, 291-294 (2002).
  116. A.R. Martel, **S.A. Baum**, W.B. Sparks, J.A. Biretta, G. Verdoes Kleijn, N.J. Turner, "The Nuclear Dust Disks of Five Nearby 3CR Elliptical Galaxies," *New Astronomy Reviews*, 46, No. 2-7, 187-192 (2002).
  117. J. A. Biretta, A.R. Martel, M. McMaster, W.B. Sparks, **S.A. Baum**, F.D. Macchetto, P.J. McCarthy, "An HST Emission-line Survey of 3CR Radio Galaxies," *New Astronomy Reviews*, 46, No. 2-7, 181-186 (2002).
  118. M.J. Kukula, J.S. Dunlop, R.J. McClure, **S.A. Baum**, C.P. O'Dea, D.H. Hughes, "HST Imaging of Radio Galaxies at  $z=0.2$ : A Comparison with Quasar Hosts and Normal Ellipticals," *New Astronomy Reviews*, 46, No. 2-7, 171-174 (2002).
  119. A.M. Koekemoer, C.P. O'Dea, C.L. Sarazin, B.R. McNamara, M. Donahue, M. Voit, **S.A. Baum**, J.F. Gallimore, "Interactions between the Abell 2597 Central Radio Source and Dense Gas in its Host Galaxy," *New Astronomy Reviews*, 46, No. 2-7, 149-153 (2002).
  120. C.P. O'Dea, W.H. de Vries, A.M. Koekemoer, **S.A. Baum**, R. Morganti, R. Fanti, A. Capetti, C.N. Tadhunter, P.D. Barthel, D.J. Axon, R. Gelderman, "Hubble Space Telescope STIS Observations of the Kinematics of Emission-Line Nebulae in Three Compact Steep-Spectrum Radio Sources," *The Astronomical Journal*, 123, 2333-2351 (2002).
  121. G.B. Taylor, A.B. Peck, C. Henkel, H. Falcke, C.G. Mundell, C.P. O'Dea, **S.A. Baum**, J.F. Gallimore, "H I Absorption in the Gigamaser Galaxy TXS 2226-184 and the Relation between H I Absorption and Water Emission," *The Astrophysical Journal*, 574, 88-94 (2002).

122. G. A. Verdoes Kleijn, R. P. van der Marel, P. T. de Zeeuw, J. Noel-Storr, **S. A. Baum**, "Gas Kinematics and the Black Hole Mass at the Center of the Radio Galaxy NGC4335," *Astrophysical Journal*, 124, 2524 (2002).
123. A.M. Koekemoer, C.P. O'Dea, **S.A. Baum**, "Emission Line Properties of GPS/CSS Galaxies," *Publications of the Astronomical Society of Australia*, 20, 147-150 (2003).
124. C.P. O'Dea, W.H. de Vries, A.M. Koekemoer, **S.A. Baum**, D.J. Axon, P.D. Barthel, A. Capetti, R. Fanti, R. Gelderman, R. Morganti, C.N. Tadhunter, "Jet-Cloud Interactions in Compact Steep Spectrum Radio Sources," *Publications of the Astronomical Society of Australia*, 20, 88-93 (2003).
125. A. Labiano, C.P. O'Dea, R. Gelderman, W.H. de Vries, D.J. Axon, P.D. Barthel, **S.A. Baum**, A. Capetti, R. Fanti, A.M. Koekemoer, R. Morganti, C.N. Tadhunter, "HST/STIS Spectroscopy of CSS sources: Kinematics and Ionisation of the Aligned Nebulae," *Publications of the Astronomical Society of Australia*, 20, 28-30 (2003).
126. R.A. Lucas, **S.A. Baum**, *et al.*, "The Hubble Deep Field South Flanking Fields" *The Astronomical Journal*, 125, 398-417 (2003).
127. E.L. Zirbel and **S.A. Baum**, "The Ultraviolet Continuum Emission of FR I and FR II Radio Galaxies and a Proposal for a Unified AGN Model for FR I sources," *The Astronomical Journal*, 125, 1795-1810(2003).
128. J. S. Dunlop, R. J. McLure, M. J. Kukula, **S. A. Baum**, C. P. O'Dea, & D. H. Hughes, "Quasars, their host galaxies, and their central black holes," *Monthly Notices of the Royal Astronomical Society*, 340, 1095-1135 (2003).
129. R.C. Vermeulen *et al.*, "Observations of H I Absorbing Gas in Compact Radio Sources at Cosmological Redshifts", *Astronomy and Astrophysics*, 404, 861-870 (2003).
130. J. Noel-Storr, **S.A. Baum**, G. Verdoes Klein, R. P. van der Marel, C. P. O'Dea, P. T. de Zeeuw, J. H. van Gorkom, & C. M. Carollo, "STIS Spectroscopy of Gas Disks in the Nuclei of Nearby, Radio-Loud, Early-Type Galaxies: The Data," *Astrophysical Journal Supplements*, 148, 419-472 (2003).
131. J. F. Gallimore, **S. A. Baum**, C. P. O'Dea, C.P., "The Parsec-Scale Radio Structure of NGC 1068 and the Nature of the Nuclear Radio Source," *Astrophysical Journal*, 613, 794 - 810 (2004).
132. C.P. O'Dea, **S.A. Baum**, J. Mack, A. Koekemoer, A. Laor, "Hubble Space Telescope STIS Far-Ultraviolet Observations of the Central Nebulae in the Cooling-Core Clusters A1795 and A2597," *Astrophysical Journal*, 612, 131 - 151 (2004).
133. D. J. E. Floyd, M. J. Kukula, J. S. Dunlop, R. J. McLure, L. Miller, W. J. Percival, **S. A. Baum**, C. P. O'Dea, "The Host Galaxies of Luminous Quasars", *Monthly Notices of the Royal Astronomical Society*, 355, 196-220 (2004)
134. A. Labiano, C. P. O'Dea, R. Gelderman, W.H. deVries, D. J. Axon, P.D. Barthel, **S.A. Baum**, A. Capetti, R. Fanti, A.M. Koekemoer, and 2 coauthors, "HST/STIS Low Dispersion Spectroscopy of Three Compact Steep Spectrum Sources. Evidence for Jet-Cloud Interaction", *Astronomy and Astrophysics*, 436, 493-501 (2005).

135. M. Das, S. N. Vogel, K. Verdoes, A Giji, C. P. O’Dea, **S. A. Baum**, “BIMA Millimeter-Wave Observations of the Core-Jet and Molecular Gas in the FR I Radio Galaxy NGC 3801”, *Astrophysical Journal*, 629, 757-766 (2005)
136. M. Donahue, G. M. Voit, C. P. O’Dea, **S.A. Baum**, W. B. Sparks, “Two Clusters of Galaxies with Radio-quiet Cooling Cores”, *Astrophysical Journal*, 630, 13-16 (2005)
137. C. Stanghellini, C. P. O’Dea, D. Dallacasa, P. Cassaro, **S. A. Baum**, R. Fanti, C. Fanti, “Extended Emission Around GPS Radio Sources”, *Astronomy and Astrophysics*, 443, 891-902 (2005)
138. A. Tilak, C. P. O’Dea, C. Tadhunter, K. Wills, R. Morganti, **S. A. Baum**, A. M. Koekemoer, D. Dallacasa, “Resolving the Shocks in Radio Galaxy Nebulae: Hubble Space Telescope and Radio Imaging of 3C 171, 3C 277.3, and PKS 2250-41”, *Astrophysical Journal*, 130, 2513-2521 (2005)
139. **S. A Baum**, A. Laor, C. P. O’Dea, J. Mack, A. M. Koekemoer, “Hubble Space Telescope STIS Spectroscopy of the Ly $\alpha$  Emission Line in the Central Dominant Galaxies in A426, A1795, A2597: Constraints on Clouds in the Intracluster Medium”, *Astrophysical Journal*, 632, 122-136 (2005)
140. C. P. O’Dea, J. Gallimore, C. Stanghellini, **S. A. Baum**, J. M. Jackson, “A Search for Molecular Gas in GHz-Peaked Spectrum radio Sources”, *Astronomical Journal*, 129, 610, 614 (2005)
141. R. C. Vermeulen, A. Labiano, P. D. Barthel, **S. A. Baum**, W. H. deVries, C. P. O’Dea, “Atomic Hydrogen in the One-Sided “Compact Double” Radio Galaxy 2050+364”, *Astronomy and Astrophysics*, 447, 489-498 (2006)
142. G.R. Tremblay, A. C. Quillen, D. J. E. Floyd, J. Noel-Storr, **S. A. Baum**, D. Axon, C. P. O’Dea, P. Christopher, M. Chiaberge, F. D. Macchetto, W. B. Sparks, 4 coauthors “The Warped Nuclear Disk of Radio Galaxy 3C 449”, *Astrophysical Journal*, 643, 101-111 (2006)
143. C. P. O’Dea, Bo Mu, D. M. Murrall, Joel Kastner, **S. A. Baum**, W. H. de Vries, “XMM-Newton Detection of X-ray Emission from the Compact Steep-Spectrum Radio Galaxy 3C 303.1”, *Astrophysical Journal*, 1115, 1120 (2006)
144. A. Labiano, C. P. O’Dea, P. D. Barthel, W. H. de Vries, **S. A. Baum**, “Star Formation in Hosts of Young Radio Galaxies”, *New Astronomy Review*, 776, 778 (2006)
145. P. Kharb, C. P. O’Dea, **S. A. Baum**, E. J. M. Colbert, C. Xu, “A Radio Study of the Seyfert Galaxy Markarian 6: Implications for Seyfert Life Cycles”, *Astrophysical Journal*, 177, 188 (2006)
146. E. S. Perlman, C. A. Padgett, M. Georganopoulos, W. B. Sparks, J. A. Biretta, C. P. O’Dea, **S. A. Baum**, M. Birkinshaw, D. M. Worrall, F. Dulwich, S. Jester, A. Martel, A. Capetti, J. P. Leahy, “Optical Polarimetry of the Jets of Nearby Radio Galaxies. I. The Data”, *Astrophysical Journal*, 735, 748 (2006)
147. J. F. Gallimore, D. J. Axon, C. P. O’Dea, **S. A. Baum**, A. Pedlar, “A Survey of Kiloparsec-Scale Radio Outflows in Radio-Quiet Active Galactic Nuclei”, *Astronomical Journal*, 546, 569 (2006)
148. C. L. Buchanan, J. F. Gallimore, C. P. O’Dea, **S. A. Baum**, D. J. Axon, A. Robinson, M. Elitzur, M. Elvis, “Spitzer IRS Spectra of a Large Sample of Seyfert Galaxies: A Variety of Infrared Spectral Energy Distributions in the

- Local Active Galactic Nucleus Population”, *Astronomical Journal*, 401, 419 (2006)
149. J. P. Madrid, M. Chiaberge, D. Floyd, W. B. Sparks, D. Macchetto, G. K. Miley, D. Axon, A. Capetti, C. P. O’Dea, **S. A. Baum**, E. Perlman, A. Quillen, “Hubble Space Telescope Near-Infrared Snapshot Survey of 3CR Radio Source Counterparts at low Redshift”, *Astrophysical Journal Supplement Series*, 307, 333 (2006)
  150. D. J. E. Floyd, R. Laing, M. Chiaberge, E. Perlman, W. Sparks, D. Macchetto, J. Madrid, C. P. O’Dea, **S. A. Baum**, A. Quillen, G. Miley, A. Capetti, “An Optical Infrared Jet in 3C 133” *Astrophysical Journal*, 660, 666 (2006)
  151. A. Labiano, R. C. Vermeulen, P. D. Barthel, C. P. O’Dea, J. F. Gallimore, **S. A. Baum**, W. de Vries, “H I Absorption in 3C 49 and 3C 268.3 Probing the Environment of Compact Steep Spectrum and GHz Peaked Spectrum Sources”, *Astronomy and Astrophysics*, 447, 481-487 (2006)
  152. A. Labiano, P. D. Barthel, C. P. O’Dea, W. H. deVries, I. Perez, **S. A. Baum**, “GPS Radio Sources: New Optical Observations and an Updated Master List” *Astronomy and Astrophysics*, 463 (2007)
  153. M. Donahue, W. Sparks, M. Sun, G. Voit, C. O’Dea, **S.A. Baum**, A. Jordan, P. Cote, L. Ferrarese, J. Pringle, D. Macchetto, “Multiwavelength Signatures of Star Formation in the Brightest Cluster Galaxies of Cool Core Clusters”, *American Astronomical Society Meeting*, 210, No. 34.04 (2007)
  154. J. Noel-Storr, **S.A. Baum**, C.P. O’Dea, “Emission-Line Gas Kinematics in the Vicinity of the Supermassive Black Holes in Nearby Radio Galaxies”, *Astrophysical Journal*, 663, 71-80 (2007)
  155. M. Donahue, A. Jordán, **S.A. Baum**, P. Côté, et al., “Infrared Emission from the Nearby Cool Core Cluster Abell 2597”, *Astrophysical Journal*, 670, 231-236 (2007)
  156. A. Labiano, C. P. O’Dea, P. D. Barthel, W. H. de Vries, **S. A. Baum**, “Star formation in the hosts of GHz peaked spectrum and compact steep spectrum radio galaxies”, *Astronomy and Astrophysics*, 477, 2, 491-501 (2008)
  157. P. Kharb, C. P. O’Dea, **S. A. Baum**, R. Daly, M. Mory\*, M. Donahue, & E. Guerra, “A Radio Study of 13 Powerful Classical Double Radio Galaxies, *Astrophysical Journal Supplements*, 174, 74-110 (2008)
  158. R. A. Daly, S. G. Djorgovski, K. A. Freeman, M. P. Mory\*, C. P. O’Dea, P. Kharb, **S. A. Baum**, “Improved Constraints on the Acceleration History of the Universe and the Properties of Dark Energy,” *Astrophysical Journal*, 677, 1 -- 11 (2008).
  159. G. C. Privon\*, C. P. O’Dea, **S. A. Baum**, D. J. Axon, P. Kharb, C. L. Buchanan, W. Sparks, and M. Chiaberge, “WFPC2 LRF Imaging of Emission Line Nebulae in 3CR Radio Galaxies,” *Astrophysical Journal Supplements*, 175, 423 -- 461 (2008).
  160. A. C. Quillen, N. Zufelt\*, J. Park, C. P. O’Dea, **S. A. Baum**, G. Privon, J. Noel-Storr, A. Edge, H. Russell, A. Fabian, M. Donahue, J. N. Bregman, B. R. McNamara, C. L. Sarazin, “An infrared survey of brightest cluster galaxies: Paper I,” *Astrophysical Journal Supplements*, 176, 39 -- 58 (2008).

161. C. P. O'Dea, **S. A. Baum**, G. Privon\*, J. Noel-Storr, A. C. Quillen, N. Zufelt\*, J. Park, A. Edge, H. Russell, A. Fabian, M. Donahue, C. L. Sarazin, B. R. McNamara, J. N. Bregman, E. Egami, "An Infrared Survey of Brightest Cluster Galaxies. II: Why are Some Brightest Cluster Galaxies Forming Stars?" *Astrophysical Journal*, 681, 1035 -- 1045 (2008).
162. A. Michael, **S. A. Baum**, J. F. Fries, B-C Ho, R. K. Pierson, N. Cn Andreasen, V. D. Calhoun, "A Method to Fuse fMRI Tasks through Spatial Correlations Applied to Schizophrenia," *Human Brain Mapping*, Vol 30, Issue 8, pages 2512-2529 (2009)
163. G. R. Tremblay\*, A. C. Quillen, D. J. E. Floyd, J. Noel-Stoff, **S. A. Baum**, D. Axon, C. P. O'Dea, M. Chiaberge, F. D. Macchetto, W. B. Sparks, G. K. Miley, A. Capetti, J. P. Madrid, & E. Perlman, "The Warped Nuclear Disk of Radio Galaxy 3C 449," *Astrophysical Journal*, 643, 101 -- 111 (2006).
164. F. Massaro, F. ... **S. A. Baum** ... et al., "The Jet of 3C17 and the Use of Jet Curvature As a Diagnostic of the X-Ray Emission Process," *Astrophysical Journal*, Vol 696, Issue 1, Pages 980-985 (2009)
165. P. Kharb P. ... **S. A. Baum** ... et al. , "Rotation Measures Across Parsec-Scale Jets of Fanaroff-Riley Type I Radio Galaxies," *Astrophysical Journal*, Vol 694, Issue 2, pages 1485-1497 (2009)
166. R. A. Daly, M. P. Mory\*, C. P. O'Dea, P. Kharb, **S. A. Baum**, E. J. Guerra, and S. G. Djorgovski, "Cosmological Studies with Radio Galaxies and Supernovae," *Astrophysical Journal*, 691, 1058 -- 1067 (2009).
167. C. P. O'Dea, R. Daly, P. Kharb, K. A. Freeman\*, & **S. A. Baum**, "Physical Properties of Very Powerful FR II Radio Galaxies," *Astronomy and Astrophysics*, 494, 471 -- 488 (2009)
168. F. Massaro, F. ... **S. A. Baum** ... et al., "Extended X-Ray Emission in Radio Galaxies; The Peculiar Case of 3C305," *Astrophysical Journal Letters*, Vol 692, Issue 2, pages L123-L126 (2009)
169. A. Michael, **S. A. Baum**, T. W. White et al., "Does Function Follow Form": Methods to Fuse Structural and Functional Brain Images Show Decreased Linkage in Schizophrenia," *Neuroimage*, 49:3, p2626 (2010)
170. R. A. Daly, P. Kharb, C. P. O'Dea, **S. A. Baum**, M. P. Mory\*, J. McKane\*, C. Altenderfer\*, M. Beury\*, "A Detailed Study of the Lobes of Eleven Powerful Radio Galaxies," *Astrophysical Journal Supplements*, 87 1 - 61 (2010)
171. J. F. Gallimore, A. Yzaguirre\*, J. Jakoboski\*, M. J. Stevenosky\*, D. J. Axon, **S. A. Baum**, C. L. Buchanan, M. Elitzur, M. Elvis, C. P. O'Dea, A. Robinson, "Infrared Spectral Energy Distributions of Seyfert Galaxies: Spitzer Space Telescope Observations of the 12  $\mu$ m Sample of Active Galaxies," *Astrophysical Journal Supplements*, 187, 172 - 211 (2010)
172. K. P. O'Dea\*, A. C. Quillen, C. P. O'Dea, G. Tremblay, B. Snios\*, K. Christiansen\*, **S. A. Baum**, J. Noel-Storr, A. Edge, M. Donahue, M. Voit, "Hubble Space Telescope Far-ultraviolet Observations of Brightest Cluster Galaxies: The Role of Star Formation in Cooling Flows and BCG Evolution," *Astrophysical Journal*, 719, 1619 --1632 (2010)
173. **S. A. Baum**, J. F. Gallimore, C. P. O'Dea, C. L. Buchanan, J. Noel-Storr, D. J. Axon, A. Robinson, M. Elitzur, M. Dorn\*, S. Staudaher\*, M. Elvis, "Infrared

- Diagnostics for the Extended 12 micron Sample of Seyferts,” *Astrophysical Journal*, 170, 298 – 308 (2010)
174. E. S. Perlman, C. A. Padgett, M. Georganopoulos, D. M. Worrall, J. H. Kastner, G. Franz, M. Birkinshaw, F. Dulwich, C. P. O’Dea, **S. A. Baum**, W. B. Sparks, J. A. Biretta, L. Lara, S. Jester and A. Martel, “A Multi-wavelength Spectral and Polarimetric Study of the Jet of 3C264”, the *Astrophysical Journal*, 708, 171, 2010
175. Grant R. Tremblay, Christopher P. O’Dea, **Stefi A. Baum**, Anton M. Koekemoer, William B. Sparks, Ger de Bruyn and Arno P. Schoenmaker, “Episodic Star Formation Coupled to Reignition of Radio Activity in 3C236”, *Astrophysical Journal*, 715, 172, 2010

### **Popular Articles and Book Chapters**

1. J.F. Gallimore, **S.A. Baum**, and C.P. O’Dea, “Viewing the Violent Heart of an Active Galaxy,” *Modern Astronomer*, 9, 21 (1997).
2. S. A. Baum, “The Accidental Astronomer”, chapter in the book, Motherhood, the Elephant in the Laboratory: Women Scientists Speak Out, edited by Emily Monosson, (2008)

### **Over 70 Articles and 70 Abstracts Published in Proceedings**

#### **Technical Publications (not in journals or proceedings)**

1. **S.A. Baum**, “HST Archive Primer and HST Archive Manual,” Version 1.0, editor, Space Telescope Science institute (1992,1993).
2. **S.A. Baum**, *et al.* “Hubble Space Telescope Data Handbook,” Version 1.0, editor, Space Telescope Science Institute (1994).
3. **S.A. Baum**, M. Clampin, G. Hartig, P. Hodge, E. Kinney, “New Instruments for Second Servicing Mission: Space Telescope Imaging Spectrograph,” Space Telescope Science Institute (1995).
4. **S.A. Baum**, *et al.* “STIS Instrument Handbook,” Version 1.0, Space Telescope Science Institute (1996).
5. **S.A. Baum**, M. Clampin, G. Hartig, “STIS Capabilities for Cycle 7 – A Discussion Document,” STIS Instrument Science Report, 95-05, (1995).
6. **S.A. Baum**, P. Hodge, R. Kutina, “STIS Design Reference Mission and Ground System Volume Requirements,” STIS Instrument Science Report, 95-02, (1995).
7. M. Clampin and **S.A. Baum**, “Descope of the STIS Calibration System,” STIS Instrument Science Report, 95-03, (1995).
8. **S.A. Baum**, P. Hodge, “Plans for the STScI STIS Pipeline I: Overview,” STIS Instrument Science Report, 95-06, (1995).
9. P. Hodge and **S.A. Baum**, “Plans for the STScI STIS Pipeline II: Calstis-1, Two-Dimensional Image Reduction,” STIS Instrument Science Report, 95-07, (1995).

10. K. Sahu, A. Danks, **S.A. Baum**, V. Balzano, S. Kraemer, R. Kutina, and W. Sears, "TIME-TAG Mode of STIS Observations Using the MAMA Detectors," STIS Instrument Science Report, 95-011, (1995).
11. R. Bohlin, D.J. Lindler, and **S.A. Baum**, "On-Orbit Flat Fields and Absolute Calibration of STIS," STIS Instrument Science Report, 95-015, (1995).
12. J. MacKenty and **S.A. Baum**, "Associations of NICMOS and STIS Exposures: An Extension of the HST Data Processing Pipeline," STIS Instrument Science Report, 96-16, (1996).
13. S. Hulbert, P. Hodge, and **S.A. Baum**, "The STScI STIS Pipeline IV: Reduction of WAVECALs," STIS Instrument Science Report, 96-19, (1996).
14. **S.A. Baum**, N. Zarate, and P. Hodge, "The STScI STIS Pipeline III: TIMETAG Data," STIS Instrument Science Report, 96-013, (1996).
15. **S.A. Baum**, J.C. Hsu, P.Hodge, and H. Ferguson, "The STScI STIS Pipeline V: Cosmic Ray Rejection," STIS Instrument Science Report, 96-018, (1996).
16. C. Leitherer, **S.A. Baum**, and M. Clampin, "STIS Bright Object Protection Observing Policies for the MAMA Detectors," STIS Instrument Science Report, 96-028, (1996).
17. R. Bohlin, D. Lindler, R. Kutina, C. Joseph, and **S.A. Baum**, "STIS: Hi-Res or Lo-Res MAMA Operations?" STIS Instrument Science Report 96-025, (1996).
18. M. Clampin and **S.A. Baum**, "STIS Mode Select Mechanism Grating Positions," STIS Instrument Science Report 96-009A, (1996).
19. C. Leitherer, E. Kinney, **S.A. Baum**, and M. Clampin, "MAMA Bright Object Limits for Astronomical Objects," STIS Instrument Science Report 96-024, (1996).
20. M. Clampin, G. Hartig, **S.A. Baum**, S. Kraemer, E. Kinney, R. Kutina, R. Pitts, and V. Balzano, "STIS Target Acquisitions I: CCD Point Source Acquisitions," STIS Instrument Science Report, 96-030, (1996).
21. **S.A. Baum**, "Automatic and GO Wavecals for CCD and MAMA Spectroscopic Observations," STIS Instrument Science Report, 97-01, (1997).
22. P. Goudfrooij, P. Hodge, S. Hulbert, and **S.A. Baum**, "The STScI STIS Pipeline IV: Combining Repeatobs Data," STIS Instrument Science Report, 97-005, (1997).
23. R. Downes, M. Clampin, R. Shaw, **S.A. Baum**, E. Kinney, M. McGrath, "A User's Guide to Target Acquisition with STIS," STIS Instrument Science Report, 97-03B, (1997).
24. J.R. Walsh, **S.A. Baum**, E. Malamuth, and P. Goudfrooij, "STIS Near-IR Fringing: Basics and Contemporaneous Flats for Extended Sources," STIS Instrument Science Report, 97-016, (1997).
25. **S.A. Baum**, H. Ferguson, J.R. Walsh, P. Goudfrooij, R. Downes, H. Lanning, "GO Added Near-IR Fringe Flats," STIS Instrument Science Report, 97-015, (1997).
26. P. Hodge, **S.A. Baum**, M. McGrath, D. Shaw, "Calstis0: Pipeline Calibration of STIS Data – A Detailed View," STIS Instrument Science Report, 98-10, (1998).
27. P. Hodge, **S.A. Baum**, M. McGrath, S. Hulbert, J. Christensen, "Calstis4, Calstis11, Calstis12: Wavecal Processing in the STIS Calibration Pipeline," STIS Instrument Science Report, 98-12, (1998).

28. M. McGrath, P. Hodge, **S.A. Baum**, “Calstis7: Two-Dimensional Rectification of Spectroscopic Data in the STIS Calibration Pipeline,” STIS Instrument Science Report, 98-13, (1998).
29. P. Goudfrooij, R.C. Bohlin, J.R. Walsh, and **S.A. Baum**, “STIS Near-IR Fringing II: Basics and Use of Contemporaneous Flats for Spectroscopy of Point Sources,” STIS Instrument Science Report, 98-19, (1998).
30. C. Bowers and **S.A. Baum**, “Plate Scales, Anamorphic Magnification and Dispersion: CCD Modes,” STIS Instrument Science Report, 98-23, (1998).
31. C. Bowers and **S.A. Baum**, “Spectroscopic Mode Peculiarities,” STIS Instrument Science Report, 98-24, (1998).
32. ...and numerous additional internal Technical Reports.

**Table 1. Complete List Grants and Contracts 2004-2009, Stefi Alison Baum**

<b>Role</b>	<b>Prime Sponsor</b>	<b>Title</b>	<b>Award</b>	<b>Status</b>
PI	National Science Foundation (NSF)	NSF Research Experience For Undergraduates: Imaging in the Physics Sciences	\$389,774	Pending 08/2010
PI	NSF	Innovative Freshman Experience	\$184,137	Pending 5/2010
CoI	NSF	Boundary Crossing Teams in Support of Math and Science Excellence in Our School Systems	\$294,946	Pending 7/2010
PI	NSF	Graduate Teaching Fellows in K-12 Education	\$1,806,208	Pending, 06/2010
PI	NASA	Investigation of AGN Evolution Using a Novel Temporal Based Approach	\$352,939	Pending 5/2010
Co-PI	NASA	The Life Cycles of Radio Galaxies	\$115,931	Pending 05/2010
PI	NSF	Science Master’s Program: Decision Support Technologies for Environmental Forecasting and Disaster Response	\$662,813	Awarded 06/2010
Co-PI	NASA	NASA Science and Technology on the Family Calendar	\$600,000	Awarded 6/2010
Co-PI	NASA	Imaging Strong Shocks in the Compact Steep Spectrum Radio Galaxy B3 1445+410	\$44,177	Awarded 08/2010
Co-PI	NASA	NYSG Education and Outreach Supplement Proposal	\$5,000	Awarded 07/2009
Co-PI	National Aeronautics & Space Administration (NASA)	The Origin of the Mid to Far-infrared Emission from Powerful Radio Galaxies	\$103,265	Awarded 06/2009
Co-PI	NASA	Completing the Cycle of Cooling, Star Formation and Heating	\$10,538	Awarded 08/2009
Co-PI	Motorola	Learning Science through	\$30,700	Awarded



	Foundation	Innovation and Creativity: Workshops for Families		02/2009
Co-PI	NASA	Evolution of Compact Quasars and Radio Galaxies	\$17,450	Awarded 02/2009
Co-PI	NASA	Engaging K12 Researchers through Astronomy-Teacher Partnerships	\$14,807	Awarded 09/2009
Co-PI	NASA	High School Student Explorations of Planetary Surfaces in Digital Immersive Worlds	\$44,522	Awarded 09/2009
PI	NASA	Constraints on Accretion Disk Physics in Low Luminosity Radio Galaxies	\$13,545	Awarded 10/2008
PI	NASA	IRS Spectroscopic Follow up of Spitzer Brightest Cluster Galaxies	\$15,000	Awarded 09/2009
PI	Mind Research Network	Imaging Science Applied to the Study of Schizophrenia	\$26,333	Awarded 9/2009
PI	NASA	Does AGN Heating Quench Star Formation...	\$9,976	Awarded 12/2008
Co-PI	NSF	Establishing the Foundation for Future Organizational Reform and Transformation	\$199,770	Awarded 06/2008
Co-PI	NASA	Constraining the Cold Gas and Dust in Cluster Cooling Flows	\$414,631	Awarded 10/2007
Sen. Pers.	NASA	A Lidar Imaging Detector for NASA Planetary Missions	\$1,097,409	Awarded 09/2007
Co-PI	NASA	Towards a Complete Sample: 3CR Extragalactic Radio Sources with $z < 0.3$	\$35,000	Awarded 09/2007
Co-PI	NASA	The Journey of a Photon: "High School Student Involvement in Developing Their Community's Understanding of Detector Science"	\$44,986	Awarded 07/2007
Co-PI	NASA	HST FUV Observations of Brightest Cluster Galaxies: The Role of Star Formation in Cooling Flows and BCG Evolution	\$36,053	Awarded 05/2007
PI	Department of Energy (DOE)	Mind Institute Fellowship	\$55,000	Awarded 04/2007
Co-PI	NASA	Resolving the Critical Ambiguities of the M-Sigma Relationship	\$201,497	Awarded 09/2006
PI	NASA	NRAO Junior Fellowship-Andrew Michael	\$50,268	Awarded 09/2006
Co-PI	NASA	A Census of Star	\$86,054	Awarded

		<b>Formation in the Brightest Cluster Galaxies: Is Star Formation the Ultimate Fate of the Cooling Gas?</b>		<b>08/2006</b>
<b>PI</b>	<b>NASA</b>	<b>JWST/NIRCAM Project-Mod 2</b>	<b>\$131,794</b>	<b>Awarded 05/2006</b>
<b>PI</b>	<b>NASA</b>	<b>Black Holes and Gas Disks in a Complete Sample of Radio-Loud Ellipticals-II: Kinematics</b>	<b>\$10,068</b>	<b>Awarded 11/2005</b>
<b>PI</b>	<b>NASA</b>	<b>IRS Spectroscopy of 3CR Radio Galaxies</b>	<b>\$61,463</b>	<b>Awarded 08/2005</b>
<b>PI</b>	<b>NYS Office of Science, Technology &amp; Academic Research (NYSTAR)</b>	<b>Faculty Development Program: Recruitment of Donald Figer</b>	<b>\$727,935</b>	<b>Awarded 07/2005</b>
<b>PI</b>	<b>NASA</b>	<b>Summer Student to use Subpixel Repositioning (SER) techniques to Sharpen Chandra X-Ray Images</b>	<b>\$6,019</b>	<b>Awarded 05/2005</b>
<b>PI</b>	<b>NASA</b>	<b>James Webb Space Telescope Near Infrared Camera University of Arizona Project</b>	<b>\$125,000</b>	<b>Awarded 11/2004</b>
<b>PI</b>	<b>NASA</b>	<b>Ultraviolet Snapshots of 3CR Radio Galaxies</b>	<b>\$45,758</b>	<b>Awarded 09/2004</b>
<b>PI</b>	<b>NASA</b>	<b>Infrared Snapshots of 3cr Radio Galaxies</b>	<b>\$40,000</b>	<b>Awarded 09/2004</b>