Daniel B. Caton
Professor
Dept. of Physics & Astronomy
Appalachian State University
Boone, North Carolina 28608

Office:828/262-2446
catondb@appstated.edu
www.DanCaton.physics.appstate.edu

Education

Graduated Phi Beta Kappa, Ph.D. in Astronomy, University of Florida, 1981.

M.A. in Astronomy. Univ. of South Florida, 1976.

B.A. in Astronomy, and in Physics. University of South Florida, 1973.

Employment

Professor (tenured), Department of Physics and Astronomy, Appalachian State University, August 1984 to present.

Assistant Professor (tenure track), Department of Physical Sciences, Salisbury State College (now University), Salisbury, Maryland. August 1983 to July 1984.

Assistant Professor (soft money position), Department of Physics and Astronomy, Appalachian State University, August 1981 to June 1983.

NASA/ASEE Summer Fellow at Goddard Space Flight Center in cooperation with the University of Maryland, 1983 and 1984.

Assistant Professor (temporary), Department of Physics and Astronomy, Appalachian State University, Boone, North Carolina. August 1981 to June 1983.

Instructor (part time), Physics Department, Hillsborough Community College, Tampa, Florida. 1976-1977.

Teaching Experience

Appalachian State University: Introductory Astronomy, Observational Astronomy, Astromechanics, Techniques in Astronomical Photometry . Binary and Variable Stars, Analytical Physics, General Physics, Conceptual Physics, Classical Mechanics, Waves and Oscillations, Digital Electronics, Microcomputers, Methods of Experimental Physics

Salisbury State College (now Salisbury University): Astronomy labs, Analytical Physics, Electronics, Digital Electronics.

University of Florida: Astronomy labs, Advanced Astronomy Lab.

University of South Florida: Descriptive Astronomy, Observational Astronomy. Hillsborough Community College: Astronomy, Physics labs, Physics for Electronics Technicians, Physics for Nuclear Technologists.

Professional and Honorary Societies

International Astronomical Union, American Astronomical Society, American Association of Physics Teachers, Phi Beta Kappa, Sigma Xi, Astronomical Society of the Pacific, Royal Astronomical Society of Canada, DarkSky International, Illuminating Engineering Association of North America, American Association of Variable Star Observers.

Personal

Born July 1, 1951, in Tampa, Florida. Married and in good health. Wife (Susan) has a masters degree in reading education, and teaches at Green Valley elementary school. Twins, born 5/31/91, graduated from App State.

Research Interests

Eclipsing binary stars: observing and computer modeling, flare stars, apsidal motion binaries, occultation photometry, general development of instrumentation. Applications of computers to telescopes and observatories.

Telescope Experience

Small (17, 18, 26, 30, 32, and 36 inch) telescopes. Spectrographs and image-intensifiers. Single and multiple beam photometers, cameras, CCD cameras, and image processing software (MIRA).

Computer Experience

Hardware: Amdahl 470/V6, IBM 3033, and Univac 90/80 mainframes. Dec 8600, VAX 11/780, PDP 11-34 and 11-44 minicomputers. PC compatibles.

Software: FORTRAN, BASIC, FORTH, Dec VMS, MS-DOS, Windows, WordPerfect, MS Office, Dreamweaver, Visual Studio, Mira.

Grants and Honors

IUE Observation grant: Rotational Coupling of Chromospheric Activity in RS CVn Binary Stars, R.A. Parise, L. W. Twigg, D. B. Caton, and J. B. Rafert, 1981.

Chaired the Special Interest Group on Microcomputer Use in Astronomy (SIGMUA), of the American Astronomical Society's Working Group on Astronomical Software, 1983-1986.

Co-chaired with D. Hall (Vanderbilt) the Microcomputers in Astronomy conference, AAS/SIGMUA & IAPPP, July 1983.

Public Observing Programs and Lectures in Astronomy, American Academy of Science V. M. Slipher Committee award, 1983, $675.

Interactive Microcomputer Based Analysis of Eclipsing Binary Light Curves, NASA/AAS Small Research Grant, 1983, $1150.

Determination of Stellar Diameters and Positions from High Speed Photometry of Lunar Occultations, ASU Research Committee, 1984, $1595.

Modern Laboratory Exercises in Astronomy, NSF College Science Instrumentation Program, 1985-1987, $24,910.

Served on grant review panel for the NSF College Science Instrumentation Program, 1986.

Precision Multiple-Beam Photometry of Eclipsing Binary Stars, ASU Research Committee, 1986, $2336.

Starline: An Astronomical Information Service. V. M. Slipher Committee of the National Academy of Sciences, 1986-, $350.

A Digital Imaging System for Astronomical Photometry, North Carolina Board of Science and Technology, 1987-88, $21,660.

Accuracy of Methods of Determining Eclipsing Binary Times of Conjunction. National Science Foundation, 1987-88, $17,100.

Precision Multiple-Beam Photometry of Eclipsing Binary Stars, ASU Research Committee, 1987 (continuation of 1986 grant), $1971.

A Modern Technology Telescope for Undergraduate Student Research, NSF Instruments and Laboratory Improvements Program, 1988, $100,000.

Observatory Director, 1988-present

Served on grant review panel for NSF Instruments and Laboratory Improvements Program, 1989.

Loan-A-Scope: A Program to Loan Telescopes to the General Public. V. M. Slipher Committee of the National Academy of Sciences, 1989-, $720.

Served on grant review panel for NSF Instrument and Laboratory Improvements Program, 1990.

Automated Photometry of Eclipsing Binaries, American Astronomical Society Small Research Program, 1990, $2930.

Development of an Automatic Photoelectric Telescope (APT) for Photometry of Variable Stars, ASU Research Committee, 1990, $1964.

Astronomy Instrumentation, North Carolina Board of Science and Technology, 1990, $25,000.

Development of Modern Observational Astronomy Lab Projects, National Science Foundation's Instrumentation and Laboratory Improvement program (under the new Leadership in Laboratory Development guidelines), 1991-1994 $64,455.

A CCD Camera and Image Processing System for Astronomical Research, National Science Foundation, under the Research in Undergraduate Institutions (RUI) program, 1991-1994 $68,850.

Automated Photometry of Eclipsing Binaries,the Small Research Grant program of the American Astronomical Society, 1992, $2930.

Served on grant review panel for NSF Instrument and Laboratory Improvements Program, 1993.

Development of an CCD-Camera System for Searching for Supernova Events in External Galaxies, ASU Research Committee, 1991-2 ($1,000) and 1992-3 ($1,057).

Natality and the Moon: Are Birthrates Dependent on the Phase of the Moon?, ASU Research Council, Summer 1994 ($1,000).

Diffraction Spikes and Art: An Investigation ofthe Origin of the Stellar "Cross" in Art, ASU Research Council, Summer 1995 ($1,000).

Photoelectric Photometry of Eclipsing Binaries, ASU Research Council, Fall 1995 ($2,160).

Photometry of Times of Minimum Light of Eccentric binary systems, the Small Research Grant program of the American Astronomical Society, 1995, $2949.

Filters for CCD Photometry, Fund for Astrophysical Research, 1995 ($820).

Imaging, Photometry and Discovery of Quasars and Variable Stars, (with J.T. Pollock), ASU Research Council, Summer 1996 ($1,112).

Measurement of Double Stars by Speckle Interferometry, ASU Research Council, Summer 1996 ($1,346).

Spectral and Photometric Monitoring of Mira Variables, (with M. W. Castelaz at East Tennessee State Univ.),the Small Research Grant program of the American Astronomical Society, 1997 ($3,975).

Acquisition of CCD Camera and Instrument Selector, National Science Foundation's Research at Undergraduate Institutions program ($64,200).

A Scientific Investigation of the Brown Mountain Lights, ASU Research Council, Fall 1997 ($2,000).

Multi-Passband CCD Photometry of Variable Stars and QSOs, Fund for Astrophysical Research, 1997 ($1,639).

A Search for Impact Events on the Moon, ASU Research Council, Fall 1997 ($2,485).

Served on grant review panel for NSF Research at Undergraduate Institutions Program, 1999.

Exploratory Search for Extrasolar Trojan Planets in Binary Systems, National Science Foundation Small Grants for Exploratory Research, 2000-2002, $98,764.

Served on grant review panel for NSF IGERT Program, 2000.

Precision Photometry and Spectroscopy of Faint Variable Stars, ASU Research Council, Fall 2000 ($3,800).

CCD Photometry and SpectralMonitoring of Variable Stars. Fund for Astrophysical Research, Oct. 2000 ($3,275).

Acquisition of a Telescope and Dome System for Research Training, National Science Foundation's Major Research Instrumentation program. ($119,663,)

"Exploratory Search for Extrasolar Trojan Planets in Binary Systems", $98,764, to the National Science Foundation's Small Grants for Exploratory Research program. Author and Principal Investigator.

"CCD Photometry and Spectral Monitoring of Variable Stars", $3,275, to the Dunham Fund for Astrophysical Research.

"Weather Station Upgrade for DSO," requested from local resident Jack Ewing, and funded. $1,000.

"The GoTo Astronomy Laboratory Facility," co-PI with PI J. Pollock and co-PI's R. Gray and L. Hawkins. Re-submitted to the National Science Foundation's CCLI program, $76,052

"Acquisition of Instrumentation and Technology Improvements for a Research and Education Observatory," PI with co-PI's R. Gray , L. Hawkins, and J. Pollock. Submitted to the National Science Foundation's MRI program, funded 7/05, $77,423.

"Acquisition of Improved Optics and New Instrumentation for a Research and Instructional Observatory," PI with co-PI's R. Gray , L. Hawkins, J. Saken, and J. Pollock. Submitted to the National Science Foundation's MRI program, funded 7/05, $213,082.

"Acquisition of Equipment in Support of Automatic Telescope Systems at a Research and Teaching Observatory," PI with co-PI's L. Hawkins and J. Pollock. Submitted to the National Science Foundation's MRI program, funded 2/10, $88,810.

"MRI: Acquisition of Equipment in Support of Remote and Automatic Observing at a Research and Teaching Observatory," PI with co-PI's L. Hawkins, M. Briley, R. Gray, and J. Pollock. Submitted to the National Science Foundation's MRI program 1/23/14, $260,320. Not funded.

"MRI: Acquisition of a Robotic Telescope to Operate on Skynet for University and Community College Research and Training," PI with co-PI's L. Hawkins and J. Pollock. Submitted to the National Science Foundation's MRI program 1/11/17, $124,367. Not funded.

"The Sun and Other Stars: Bringing the Daytime Astronomical Sky to Dark Sky Observatory Visitors." Submitted to NC Space Grant, 2/24/2017, $2,500. Funded.

"Equipment: MRI: Track 1 Acquisition of Instrumentation to Upgrade a Telescope for Research and Training," PI with co-PI's M. Briley, R. Gray, and A. McKay. Submitted to the National Science Foundation's MRI program, $367,088. Funded Fall 2024.

Publications

Caton, D.B., Fallon, F.W., and Wilson, R.E.,1977, "An Observed Eclipse of θ_1 Orionis A", Publ. A.S.P. **89**, 530.

Caton, D.B. and Oliver, J.P., 1979, "Photometric Observations of RZ Eridani". IAU Inf. Bull. Var. Stars, No. 1665.

Caton, D.B., 1983, "A Photoelectric Secondary Minimum of AR Lac", IAU Inf. Bull. Var. Stars, No. 2303.

Oliver, J.P., Caton, D.B., and Parise, R.A., 1983, "FORTH for Telescope Control", a chapter in Microcomputers In Astronomy, R.M. Genet, ed., Bookmasters.

Caton, D.B., 1983, "Light Curve Display and Analysis", a chapter in Microcomputers In Astronomy, R.M. Genet, ed., Bookmasters.

St. Cyr, C., Pollock, J.T., Pica, A.J., and Caton, D.B., 1983, "Observations of the Eclipsing Variable KT Hydrae", Publ. A.S.P. **95**, 639.

Caton, D.B., 1984, "Sky Travel", software review in Commodore Microcomputer magazine, March/April 1985.

Caton, D.B., and Pollock, J.T., 1985, "A Four Star Photometer for Use on Small Telescopes", International Astronomical Union Symposium No. 118, Instrumentation and Research Programmes for Small Telescopes, pp. 81-82, 1986.

Caton, D.B., 1986, "A Light-Curve Distortion Wave Analysis of Eight RS Canum Venaticorum Systems", A.J. **91**, 132-138.

Caton, D.B., and Pollock, J.T., 1986, "Design Considerations for a Multiple-Star Photometer", Proceedings of the SPIE, **627**, Part 1, 132-135.

Caton, D.B., and Pollock, J.T., 1986, "Modern Lab Exercises in Astronomy I: Solid State Photometry", Bulletin of the American Astronomical Society **18**, 1986.

Caton, D.B. and Hawkins, R.L., 1987, "Observations and a Time of Minimum of TV Cet", IAU Inf. Bull.Var. Stars, No. 3004.

Caton, D.B., Hawkins, R.L., and Burns, W.C., 1989, "Times of Minimum Light for 16 Eclipses of 8 Apsidal Motion Binaries", IAU Inf.Bull.Var.Stars, No. 3408.

Caton, D.B., 1990, "Modern Photometry Lab Exercises for Students in Introductory Astronomy", in the Proceedings of IAU Colloquium #105: The Teaching of Astronomy, Cambridge Press, pp 144148.

Caton, D.B., 1990, "Curriculum for the Training of Astronomers", in the Proceedings of IAU Colloquium #105: The Teaching of Astronomy, Cambridge Press, pp 36-37.

Caton, D.B. and Hawkins, R.L., 1989, "Photometry from the East U.S.: Considerations for the GNAT", a chapter in Remote-Access Automatic Telescopes, Fairborn Press, 1989.

"A Multiple-Star Photometer", D.B. Caton and R.L. Hawkins, Bulletin of the American Astronomical Society 22, No. 1, 1990, p. 737.

"An Eclipsing Binary Light Curve Synthesis Computer Program for Instructional Use", D.B. Caton and J.T. Pollock, Bulletin of the American Astronomical Society 22, No. 1, 1990, p. 737.

"Modern Laboratory Exercises in Astronomy III: Filar Micrometer Measurementsl", J.T. Pollock and D.B. Caton, Bulletin of the American Astronomical Society 22, No. 4, 1990, p. 1237.

Caton, D.B., Burns, W.C., and Hawkins, R.L., 1991, "Times of Minimum Light for 17 Eclipses of 7 Detached Binaries", IAU Inf.Bull.Var.Stars, No. 3552.

Caton, D.B. and Burns, W.C., 1993, "Times of Minimum Light for 35 Eclipses of 21 Apsidal Motion Binaries", IAU Inf. Bull. Var. Stars, No. 3900.

"A Blind Man's Buff Through Astronomy", Mercury, Vol 25, No. 6, November-December 1996.

Caton, D.B. and Burns, W.C., "Times of Minimum Light for 22 Eclipses of 12 Detached Binaries", in preparation for submission to the IAU Inf. Bull. Var. Stars.

Bloomer, R., Wetterer, C., Mumpower, A., and Caton, D., 1998, "CCD Photometry of V1147 Cyg",IAU Inf. Bull. Var. Stars No. 4568.

Caton, D., "Supernova 1998aq in NGC 3982", IAU Circular No. 6898, May 8, 1998.

Castelaz, M.W., Luttermoser,D.G., Caton, D.B., and Piontek, R.A., "Phase Dependent Spectroscopy of Mira Variable Stars" to appear in the November, 2000, Astronomical Journal.

Caton, D.B., "Seeing Far: Building an Observational Astronomy Program," December, 2000 Physics Teacher.

Guest columnist on topics in science, technology and education, Charlotte Observer, 1996-current. with 60 columns written and published to date.

D.B. Caton, S.A. Davis and B.D. Walls," A Search for Trojan Planets: A Novel Approach for Looking for Transits of Extrasolar Planets," *Bulletin of the American Astronomical Society* **31** (5), 1534 (1999), non-refereed.

Castelaz, M.W., Luttermoser,D.G., Caton, D.B., and Piontek, R.A., "Phase Dependent Spectroscopy of Mira Variable Stars", Astronomical Journal **120**, 2627-2637 (2000).

McCollum, B., Castelaz, and Caton, D.B.,"First Detection of H-Alpha Emission in the Bright, Variable B Star HD6226", *Bulletin of the American Astronomical Society* 333 (1), (2001)

Caton, D.B., Davis, S.A. and Kluttz, K.A.," A Search for Trojan Extrasolar Planets: Planets in V442 Cas and YZ Aql?," *Bulletin of the American Astronomical Society* 332 (4), (2000)

Caton, D.B., "Seeing Far: Building an Observational Astronomy Program,"December, 2000 Physics Teacher.

Caton, D.B., Davis, S.A., Kluttz, K.A., Stamilio,R.J., and Wohlman, K.D., "Searching for Extrasolar Planets: A Status Report." Bulletin of the American Astronomical Society **33**, No.2., , p.890, 2001.

Caton, D.B., "What Should Students Remember." Physics Teacher **39,** pp.382-3,

September 2001.

Davis, S.A., Caton, D.B., Kluttz, K.A., Wohlman, K.D., Stamilio,R.J., and Hix, K.B., "The Search for Extrasolar Planets: An Update." Bulletin of the American Astronomical Society **33**, No.4., , p.1303, 2001.

Caton, D.B., "Natality and the Moon Revisited: Do Birth Rates Depend on the Phase of the Moon?" Bulletin of the American Astronomical Society **33**, No.4., , p.1371, 2001.

Hawkins, R.L. and Caton, D.B., "Light Pollution: A Primer." Bulletin of the American Astronomical Society **33**, No.4., , p.1469, 2001.

J.R. Robertson, S.C.Stutts, D.B. Caton, "A Light Curve of Theta-1 Orionis A." Bulletin of the American Astronomical Society **34**, No.4., p.1096, 2002.

"Research at Appalachian State University's Dark Sky Observatory." Bulletin of the American Astronomical Society **35**, No.5, pp 1369-1370, 2003.

"Astronomy Back East: The Future of the University Telescope," a chapter in *The Future of Small Telescopes in the New Millennium*, *Volume II – The Telescopes We Use*. Dordrecht: Kluwer Academic Publishers, 2003.

Caton, D.B., "Discovery of a Scuti Star in V469 Cyg",", IAU Information Bulletin on Variable Stars, No. 5531, May 21, 2004.

Caton, D.B, Pollock, J.T., and Davis, S.A., "Automatic CCD Imaging Systems for Time-series CCD Photometry." Bulletin of the American Astronomical Society **36**, No.5, p. 1600, December, 2004.

Caton, D.B. and Smith. A.B, "Times of Minimum Light of Neglected Eclipsing Binaries", IAU Information Bulletin on Variable Stars, No. 5595. January 17, 2005

Caton, D.B. and Smith, A.B., "The Correct Period of V1898 Cyg"," part of IAU Information Bulletin on Variable Stars, No. 5599

Caton, D.B and Smith, A.B, "Discovery of the True Period and Solution of the Light Curve for V1898 Cygni," Bulletin of the American Astronomical Society **37**, No.4, p. 1169, December, 2005.

Bergey, N.A., Hawkins, R.L., Ellsworth, C.C. and Caton, D.B, "A Data Acquisition Program for an Astronomical Photometer," Bulletin of the American Astronomical Society **37**, No.4, p. 1291, December, 2005.

Wetterer, C.J., Bloomer, R.H. and Caton, D.B., "Photometric Study of the Eccentric-Orbit Binary V1147 Cygni," Publ. Astron. Soc. Pac., 118, 436-441 (2006)

"A GRB Optical Afterglow Automatic Response Telescope on Skynet," Smith, A.B. (student) and Caton, D.B, 2006, Bulletin of the American Astronomical Society, 38, No.4, p. 1109

"The Light Curve and Parameters of Eclipsing Binary System FL Orionis," Caton, D.B, and Smith, A.B.2006, Bulletin of the American Astronomical Society **38**, No.4, p. 1104

"Sleep and the Amateur Astronomer," D.B. Caton and J.E. Roberts, *Sky and Telescope*, December, 2006, pp. 49-52

"Precise Times of Minimum Light of Neglected Eclipsing Binaries," Smith, A.B. (student) and Caton, D.B., 2007, IAU Inf. Bull. Var. Stars, No. 5745

"An Increase in Stellar Activity in the Eclipsing Binary CM Dra," Nelson, T.E. (student) and Caton, D.B., 2007, IAU Inf. Bull. Var. Stars, No. 5789

Smith, A.B, Caton, D.B, Hawkins, RL., and Ivarsen, K., "Developing a Remote Robotic Observatory for a Global Network of Rapid-Response GRB Telescopes," Bulletin of the American Astronomical Society **41**, No.1, p. 431, January, 2009.

Caton, D.B and Hawkins, R.L., "Remote Observing: Equipment, Methods and Experiences at the Dark Sky Observatory," Bulletin of the American Astronomical Society **41**, No.1, p.p. 427-8, January, 2009.

Caton, D.B., Pollock, J.T. and Saken J.M, "Outreach Plans for Appalachian State University's Observatories," Bulletin of the American Astronomical Society **41**, No.1, p. 413, January, 2009.

Reed, P.A., McCluskey, G.E, Kondo, Y., Sahde, J., Guinan, E.F., Giménez, A., Caton, D.B., Riechart, D.E., Ivarsen, K.M., and Nysewander, M.C. "Ultraviolet Study of the Active Interacting Binary Star R Arae using Archival *IUE* Data," Mon. Not. R. Astron. Soc. **401**, 913-923, 2010.

New monthly column in the Charlotte Observer and the Raleigh News & Observer, *Up in the Air*, started March, 2012 and continuing to date. A support web page for the column is also maintained at www.UpInTheAir.info .

"Several Well-observed Asteroidal Occultations in 2010," B. Timerson,, H. Abramson, J. Brooks, D. Caton, D. Clark, S. Conard, B. Cooke, D. W. Dunham, J. Dunham, S. Edberg, C. Ellington, J. Faircloth, S. Herchak, E. Iverson, R. Jones,

G. Lucas, G. Lyzenga, P. Maley, L. Martinez, J. Menke, G. Mroz, P. Nolan, R. Peterson, S. Preston, G. Rattley, J. Ray, A. Scheck, J. Stamm, R. Stanton, R. Suggs, R. Tatum, W. Thomas, Minor Planet Bulletin **38**, No. 4,. 200-204, 2011.

"I'll Tell You What You Think: An Exercise in Pseudoscience Debunking in an Introductory Astronomy Course," D. Caton, The Physics Teacher **51**, No. 11, 180-181, 2013.

"Ultraviolet Spectroscopic Analysis of Transient Mass Flow Outburst in U Cephei," Peter R. Tupa, Gary G. DeLeo, George E. McCluskey, Yoji Kondo, Jorge Sahade, Alvaro Gimenez, and Daniel B. Caton, The Astrophysical Journal **775**, 46, 21 pp, September, 2013.

"Size and Shape from Stellar Occultation Observations of the double Jupiter Trojan Patroclus and Menoetius," M. Buie, C. Olkin, W. Merline, K. Walsh, H. Levison, B. Timerson, D. Herald, W. Owen, K.H. Abramson, K. Abramson, D. Breit, D. Caton, S. Conrad, M. Croom, R. Dunford, J. Dunford, D. Dunham, C. Ellington, Y. Liu, P. Maley, A. Olsen, S. Preson, R. Royer, A. Scheck, C. Sherrod, L. Sherrod, T. Swift, L. Taylor, R. Venable, Astronomical Journal **149** (3),113, 2015.

"Primary Black Hole Spinin OJ287 as Determine by the General Relabivity Centenary Flare," M. J. Valtonen,, S. Zola, S. Ciprini, A. Gopakumar, K. Matsumoto, K. Sadakane, M. Kidger, K. Gazeas, K. Nilsson, A. Berdyugin, V. Piirola, H. Jermak,K. S. Baliyan, F. Alicavus, D. Boyd, M. Campas Torrent, F. Campos, J. Carrillo, G´omez, D. B. Caton, V. Chavushyan, J. Dalessio, B. Debski, D. Dimitrov, M. Drozdz, H. Er, A. Erdem, A. Escartin P´erez, V. Fallah Ramazani, A. V. Filippenko, F. Garcia, F. G´omez Pinilla, M. Gopinathan, J. B. Haislip, R. Hudec, G. Hurst, K. M. Ivarsen, A. Joshi, M. Kagitani, W. C. Keel, A. P. LaCluyze, B. C. Lee, E. Lindfors, J. Lozano de Haro, J. P. Moore, M. Mugrauer, R. Naves Nogues, A. W. Neely , R. H. Nelson, W. Ogloza, S. Okano, J. C. Pandey, M. Perri, P. Pihajoki, G. Poyner, J. Provencal, T. Pursimo, A. Raj, D. E. Reichart, R. Reinthal, S. Sadegi, T. Sakanoi, J. L. Saltonz, T. Schweyer, V. Simon, M. Siwak, F. C. Sold´an Alfaro, E. Sonbas, I. Steele, J. T. Stocke, L. O. Takalo, T. Tomov, L. Tremosa Espasa, J. R. Valdes, Valero P´erez, F. Verrecchia,, J. R. Webb, M. Yoneda, M. Zejmo, W. Zheng, Astrophysical Journal Letters **810**, L37, (6pp), 2016.

"Implementation and Operation of a Robotic Observatory on Skynet," Smith, A.B., Caton, D.B., and Hawkins, R.L. 2016,PASP **128**, No.963, pp. 1-21.

"BVRI Observations and Analysis of the Semidetached Binary FF Vulpecula," Samec, R.G, Nyaude, R., Caton, D.B., and Van Hamme, W. V. 2016,AJ **152**, No. 199, 6 pp.

"Is NSVS 5066754 a Near-Contact or a Marginal Contact Binary?," Samec, R.G, Nyaude, R., Caton, D.B., and Faulkner, D.R. 2016,AJ **152**, No. 6, 5 pages.

"First Photometric Analysis of the Solar-Type Binary, V428 (NSV 395), in the field of NGC 188" ," Samec, R.G., Clark, J., Maloney, Caton, D.B., and Faulkner, D.R. 2016,JAAVSO **44**, 2, 7 pp.

"New Observations of V530 Andromedae: a Critical Contact Binary?," V428 (NSV 395), in the field of NGC 188" ," Samec, R.G., Chamberlain, H., Caton, D.B., Faulkner, D.R. Clark, J., Shebs, T. 2016, JAAVSO **44**, 2, 11 pp.

"BVRI Photometric Analysis and Spectra of the Dwarf Solar type Algol Binary, V500 Pegasi," Caton, D. B., Samec, R. G., Robb, R., Faulkner, D. R., Van Hamme, W., Clark, J. D., and Shebs, T., 2017,PASP **129**, 976, 15 pp.

"BVR_CI_C Study of the Short Period Solar Type, Near Contact Binary, NSVS 10083189," Samec, R.G., Olsen, A., Caton, D.B., Faulkner, D.R., Hill, R.L., JAAVSO 45, No. 2, 2017.

"Observations and Analysis of the Extreme Mass Ratio, High Fill-out Solar Type Binary, V1695 Aquilae," Samec, Gray, C.R., Caton, D.B., Faulkner, Hill, R., Van Hamme, W., JAAVSO 45, No.2, 2017.

"BVRI Photometric Study of the High Mass Ratio, Detached, Pre-contact W UMa Binary GQ Cancri," Samec, R.G., Olsen, A., Caton, D.B., Faulkner, Van Hamme, W., JAAVSO 45, No.2, 2017.

"V1187 Herculis, the Most Extreme Mass Ratio Solar-type Binary Known," Samec, R.G, Caton, D.B., Robb, R., Faulkner, D.R., RN AAS - Research Notes of the AAS, Vol 2, No. 1, 2018.

"Installing and Running Telescopes on Skynet for Research and Instruction," Daniel B. Caton, D.B., Robotic Telescopes, Student Research and Education (RTSRE) Proceedings, San Diego, California, 2018 (in production). This paper was based on the PowerPoint given at the RTSRE conference, June, 2017.

"V1187 Herculis, the Most Extreme Mass Ratio Solar-type Binary Known," R. A. Samec, D.B. Caton, R. Robb, D.R. Faulkner, AAS Res. Notes, **2**, No.1, 2018 .

"Toward Understanding the B[e] Phenomenon. VII. AS 386, a Single-lined Binary with a Candidate Black Hole Component," S. A. Khokhlov1, A. S. Miroshnichenko1, S. V. Zharikov, N. Manset, A. A. Arkharov , N. Efimova, S. Klimanov,V M. Larionov, A. V. Kusakin, R. I. Kokumbaeva, Ch. T. Omarov, K. S. Kuratov, A. K. Kuratova1, R. J. Rudy, E. A. Laag, K. B. Crawford, T. K. Swift, R. C. Puetter, R. B. Perry, S. D. Chojnowski, A. Agishev, D. B. Caton, R. L. Hawkins, A. B. Smith, D. E. Reichart, V. V. Kouprianov, and J. B. Haislip, AJ **856**, No. 2, 158-870, 2018.

"First Precision Photometric Observations and Analyses of the Totally Eclipsing,

Solar Type Binary V573 Pegasi," Samec, R.G., Caton, D.B., Faulkner, JAAVSO 46, 2018.

"BVRI Observations, Analysis, and Spectra of the Most Extreme Mass Ratio (Total Eclipsing) W Uma Binary, V1187 Herculis," Daniel Caton, Davis R. Gentry, Ronald G, Samec, Heather Chamberlain, Russell Robb, and Robert Hill, 2019, PASP **131**, 999, 14 pp.

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"How to See the Apollo Astronaut Footprints on the Moon," Daniel Caton, presented at the American Astronomical Society's 235th Meeting, Honolulu, HI, January 4-8, 2020.

"Observational Study of the 0.9-d Period, Solar-Type, Totally Eclipsing, Near-Contact Eclipsing Binary, NS Camelopardalis," Heather Chamberlain, Ronald Samec, Daniel Caton, Davis Gentry, Riley Waddell, and Danny Faulkner, presented at the American Astronomical Society's 236th Meeting, held virtually, June 1-3, 2020.

"First Precision Photometric Observations and Analyses of the Totally Eclipsing, Solar Type Binary, TYC 2402-0643-1," Daniel Caton, Ronald Samec, Danny Faulkner, and Jacob Ray, presented at the American Astronomical Society's 236th Meeting, held virtually, June 1-3, 2020.

"Observations, Analyses and 19 Year Period Study of a Shallow Very Short Period Binary, DW CMi with a Mass Ratio Near Unity," Daniel Caton, Ronald Samec, Danny Faulkner, Riley Waddell, Davis Gentry, and Jacob Ray, presented at the American Astronomical Society's 237th Meeting, held virtually, January 10-15, 2021.

"Observations, Analyses and 61 Year Period Study the Solar Type Binary, TX Cmi With a Mass Ration Near Unity," Ronald G. Samec, Daniel Caton, Jacob Ray, Riley Waddell, Davis Gentry, and Danny Faulkner, presented at the American Astronomical Society's 237th Meeting, held virtually, January 10-15, 2021.

"BVRcIc Observations and Analysis of the Detached, Spotted, Low Mass Binary, V642 Virginis," Heather Chamberlain, Ronald Samec, Daniel Caton, and Danny Faulkner, presented at the American Astronomical Society's 237th Meeting, held virtually, January 10-15, 2021.

"New Precision Photometric Observations and the First Analyses of the Solar Type Binary, V1302 Her," Daniel Caton, Ronald G. Samec, and Danny Faulkner, presented at the American Astronomical Society's 238th Meeting, held virtually, June 6-10, 2021.

"Precision Analyses of the Totally Eclipsing, Solar Type Binary, V1115 Cassiopeiae And Its Third Component," Ronald G. Samec, Walter Van Hamme, Daniel Caton, and Marek Wolf, presented at the American Astronomical Society's 238th Meeting, held virtually, June 6-10, 2021.

Note: the January 2022 AAS 239th meeting was canceled due to the sudden onset of the Omicron variant of COVID.

"New Threats to Dark Skies: LEDs to Satellite Constellations", Dan Caton, presented at the virtual Astronomy Days, for the North Carolina Museum of Natural Sciences, Raleigh, NC, January 29, 2022.

"Photometric BVRI Observations and the First Analyses of the Bright Solar Type Binary, V1063 Cassiopeia," Daniel Caton, Ronald Samec, and Danny Faulkner, presented virtually at the American Astronomical Society's 240th Meeting, Pasadena, CA, June 10-15, 2022

"Precision Analyses of the Shallow Contact, Solar Type Binary, V471 Cassiopeia and its Third Component," Ronald Samec, Walter Van Hamme, Daniel Caton, Marek Wolf and Danny Faulkner, presented at the American Astronomical Society's 240th Meeting, Pasadena, CA, June 10-15, 2022.

"NSVS 6429576, a Deep, Extreme Mass Ratio, F-Type Binary," Daniel Caton, Ronald Samec, and Danny Faulkner, presented at the American Astronomical Society's 241st Meeting, January 8 - 12, 2023, Seattle, WA.

"Photometric Observations and the First Analyses of Totally Eclipsing, Solar Type Binary, WISEJ051352.5-170113," Ronald Samec, Daniel Caton, and Danny Faulkner, presented at the American Astronomical Society's 241st Meeting, January 8 - 12, 2023, Seattle, WA.

"How to See the Apollo Astronauts' Footprints on the Moon", Dan Caton, presented at Astronomy Days, at the North Carolina Museum of Natural Sciences, Raleigh, NC, January 28, 2023.

"A Demonstration of Observing Remotely Using App State's Dark Sky Observatory", Dan Caton, presented twice at Astronomy Days, at the North Carolina Museum of Natural Sciences, Raleigh, NC, January 28 and 29, 2023.

"BVRI Observations and the First Analyses of the Solar Type Binary, V590 Cam," Daniel Caton, Ronald Samec, and Danny Faulkner, presented at the American Astronomical Society's 242nd Meeting, Albuquerque, NM, June 10-15, 2023.

"Photometric Observations and a First Analysis of the Totally Eclipsing, Extreme-Mass-Ratio, High-Fillout Binary GSC 06462-00195." Ronald Samec, Walter Van Hamme, Daniel Caton, Marek Wolf and Danny Faulkner. presented at the American Astronomical Society's 242nd Meeting, Albuquerque, NM, June 10-15, 2023.

"BVRcIc Photometric Observations and Synthetic Light Curve Analysis of FZ Delphinus," Daniel Caton, Lucas Sanders, Christine Massingale, Riley

Waddell, and Ronald Samec", Dan Caton, presented at the North Carolina Astronomers Meeting, at Guilford Technical Community College, Jamestown, NC, September 23, 2023.

"Observations, Analyses and Period Study of the High Fill-out, Solar Type Binary, ASAS J164147+1208.0," Daniel Caton, and Ronald Samec, presented at the American Astronomical Society's 243rd Meeting, January 7 - 11, 2024, New Orleans, LA.

"The Loss of the Night Sky: Threats from LEDs and Satellite Constellations", Dan Caton, presented at Astronomy Days, at the North Carolina Museum of Natural Sciences, Raleigh, NC, February 2-4, 2024.

"A Demonstration of Observing Remotely Using App State's Dark Sky Observatory", Dan Caton, presented twice at Astronomy Days, at the North Carolina Museum of Natural Sciences, Raleigh, NC, February 2-4, 2024.

"Defending Dark Starry Skies: Battles with LEDs on the Ground and Satellite Constellations Above," presented in person to the Stellar Society astronomy club at Guilford Technical Community College, 3/22/2024.

"Satellite Constellations: The Impact on Light Pollution from Above," presented online to Starry Skies South, a DarkSky International chapter out of Birmingham, AL, 5/16/2024.

"Satellite Constellations: The Impact on Light Pollution from Above," presented to the Greensboro Astronomy Club, in Greensboro, 6/21/2024.

"Recently Observed Marginally Overcontact Solar Type Binaries: TX CMI, DW CMI, SZ Scl, V590 Cam, and GDS_J1139444-61173," Ronald Samec and me, presented by Ron at the 32nd General Assembly International Union (IAUGA 2024), Capetown, South Africa, poster id. 422, August 2024.

"Teaching About Light Pollution in Introductory Astronomy Courses," presented online at the Astronomical Society of the Pacific Virtual Conference, 8/23/2024.

"Defending Dark Skies and Human Health: Battles with LEDs on the Ground and Satellite Constellations Above," presented to the App State Physics and Astronomy department 9/20/2024.

"Defending Dark Skies and Human Health: Battles with LEDs on the Ground and Satellite Constellations Above," presented to App State's Dr. Howie Neufeld's Air Pollution class, 11/8/2024.

"Photometric BVRI Observations and the First Analyses of the Bright Eclipsing Solar Type Binary. V362 Draconis," Ronald Samec, Marek Wolf, Daniel Caton, and Danny Faulkner, presented at the American Astronomical Society's 245th Meeting, January 12 - 16, 2025, National Harbor, MD.

"Observations and Analysis of the Bright Totally Eclipsing Binary, GW Piscium with a Possible Signature of a Brown Dwarf," Daniel Caton, Ronald Samec, Andrew Repp, Bethany deLoach, and Kalla Conley, presented at the American

Astronomical Society’s 245th Meeting, January 12 - 16, 2025, National Harbor, MD.

“Defending Dark Skies and Human Health: Battles with LEDs on the Ground and Satellite Constellations Above”, Dan Caton, presented at Astronomy Days, at the North Carolina Museum of Natural Sciences, Raleigh, NC,1-2, 2025.

“A Demonstration of Observing Remotely Using App State's Dark Sky Observatory”, Dan Caton, presented twice at Astronomy Days, at the North Carolina Museum of Natural Sciences, Raleigh, NC, February 1-2, 2025.