



Morehead State University Space Science Center

Student

Awards, Honors, Grants,
Posters & Presentations
Publications



STUDENT AWARDS

Tabitha Aldridge. 2009. *A multi wavelength (X-ray, optical and radio) survey for supernova remnants in nearby galaxies M101 and NGC4258.* Second Place. Undergraduate Research Competition Award, Physics and Astronomy Poster. 95th Annual Kentucky Academy of Science Meeting. Northern Kentucky University, November 14, 2009

Daniel Graves. 2008. *Chandra Observations of the Nearby Starburst Galaxy NGC 253.* First Place, Undergraduate Research Competition Award, Physics and Astronomy Poster; 94th Annual KAS Meeting, Lexington, KY. November 1, 2008.

Jennifer Carter. 2007. *Ground Operations of the Kentucky Satellite.* First Place, Physics and Astronomy; 93rd Annual KAS Meeting, Louisville, KY. November 8-10, 2007.

Marc Beck. 2007. *A NumPy Program for Producing FITS Images from Observations Made with the 21-Meter Space Tracking Antenna at Morehead State University.* Second Place, Physics and Astronomy; 93rd Annual KAS Meeting, Louisville, KY. November 8-10, 2007.

Rao Eluru. 2007. *KySat ground station: VHF/UHF system.* Third Place, Physics and Astronomy; 93rd Annual KAS Meeting, Louisville, KY. November 8-10, 2007.

Jennifer Carter. 2007. *Kentucky Satellite (KySat): Ground Operations of a Small Satellite as an Educational Tool.* First Place, Student Research Presentation Competition. National Association of Industrial Technology (NAIT) Conference, Panama City, FL, October 2007.

Jennifer B. Carter. 2007. *Kentucky Satellite: Ground Nodes.* First Place, Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 14, 2007.

Jennifer B. Carter. 2006. *KySat: Coming to a Space Above You.* First Place, Physics and Astronomy; Kentucky Academy of Science, Morehead State University, Morehead, KY. November 11, 2006

STUDENT GRANTS & FELLOWSHIPS

- **Cara E. DeMoss.** (2010) Undergraduate Research Fellowship. Mentor: Benjamin Malphrus. *GlioLab: A Study of Glioblastoma in Microgravity.* Morehead State University, January 2010. \$1,440.00
- **Tabitha Aldridge.** (2009) Undergraduate Research Fellowship. Mentor: Thomas Pannuti. *A Search for X-ray Counterparts to Optically-Identified Supernova Remnants in the nearby Face-On Spiral Galaxy M101 Using the Chandra X-ray Observatory.* Morehead State University, October 2009. \$750.00
- **Christy Todd.** 2009. Undergraduate Research Fellowship. Mentor: Elizabeth Roland. *Enhancing Science Education in Northeastern Kentucky.* Morehead State University. August 2009. \$1,275
- **Brandon Molton.** 2009. Undergraduate Research Fellowship. Mentor: Benjamin Malphrus. *Development of a Flatsat Version of the KySat-1 Orbital Satellite for* \$1,632

Software Testing and Subsystems Development. Morehead State University. August 2009.

- **Kathleen Brown.** 2009. Student Research Assistant. Mentor: Benjamin Malphrus. \$5,000
Development of a Flatsat Version of the KySat-1 Orbital Satellite for Software Testing and Subsystems Development (continuation). NASA via Kentucky Space Grant Consortium. July 2009.
- **Jennifer Carter.** 2009. Student Research Assistant. Mentor: Benjamin Malphrus. \$11,224
Development of an Astronomy and Space Science One Carnegie Unit Course for High School Students Derived from the Kentucky Space Program. NASA Via Kentucky Space Grant Consortium. July 2009
- **Nathan Fite.** 2009. Student Research Assistant. Mentor: Benjamin Malphrus. \$15,000
Kentucky Space Initiative. Kentucky Science and Technology Corporation, Lexington, KY. July 2009.
- **Daniel Clay Graves.** 2009. Student Research Assistant. Mentor: Benjamin Malphrus. \$12,000
Kentucky Space Initiative. Kentucky Science and Technology Corporation, Lexington, KY. July 2009.
- **Kathleen Brown.** 2009. Student Research Assistant. Mentor: Benjamin Malphrus. \$6,000
Kentucky Space Initiative. Kentucky Science and Technology Corporation, Lexington, KY. July 2009.
- **Brandon Molton.** 2009. Student Research Assistant. Mentor: Benjamin Malphrus. \$3,000
Kentucky Space Initiative. Kentucky Science and Technology Corporation, Lexington, KY. July 2009.
- **Jonathan Fitzpatrick.** 2009. Student Research Assistant. Mentor: Benjamin Malphrus. \$3,000
Kentucky Space Initiative. Kentucky Science and Technology Corporation, Lexington, KY. July 2009.
- **Jessamyn Delgado.** 2008. Fellowship Stipend. Mentor: Benjamin Malphrus. \$10,000
Beta-Testing the Flight Support Software Systems and Ground Operations Software Systems for the KySat-1 Orbiting Satellite. NASA via Western Kentucky University (KY Space Grant Consortium). November 2008.
- **Jennifer B. Carter.** 2008. Fellowship Stipend. Mentor: Benjamin Malphrus. \$6,224
Development of an Astronomy and Space Science 12-week course for High School Students Derived from the Kentucky Space Grant. NASA via Western Kentucky University (KY Space Grant Consortium). November 2008.
- **Kathleen M. Brown.** 2008. Fellowship Stipend. Mentor: Benjamin Malphrus. \$5,000
Development of a Flatsat Version of the KySat-1 Orbital Satellite for Software Testing and Subsystems Development. NASA via Western Kentucky University (KY Space Grant Consortium). November 2008.
- **Arielle J. Short.** 2008. Grant Stipend. Mentor: Thomas Pannuti. \$5,000
A Continuing Campaign to Investigate Microvariability in Active Galactic Nuclei at Centimeter Wavelengths. NASA via Western Kentucky University (KY Space Grant Consortium). July 2008.
- **Mark B. Beck, Jessamyn G. Delgado, Jason M. Smathers.** 2008. Grant Stipend. \$59,500
Mentor: Benjamin Malphrus. *CubeSat Mission Support Internships*. Kentucky Science and Technology Corporation, Lexington, KY., June 2008.

- **Anthony N. Shelley.** 2008. Undergraduate Research Fellowship. Mentor: Benjamin Malphrus. *Design and Implementation of a 40 ft. Space Tracing Antenna for Small Satellite Mission Support and Radio Astronomy Research.* Morehead State University, Morehead, KY., August 2008. \$3,150.00
- **Daniel C. Graves.** 2008. Undergraduate Research Fellowship. Mentor: Thomas Pannuti. "A Multiwavelength Study of the Supernova Remnant Population of the Nearby Starburst Galaxy NGC 253." Morehead State University, Morehead, KY., August 2008. \$3,712.50
- **Brandon L. Molton.** 2008. Undergraduate Research Fellowship. Mentor: Benjamin Malphrus. *Development of a Flatsat Version of the KySat-1 Orbital Satellite for Software Testing and Subsystems Development.* Morehead State University, Morehead, KY., August 2008. \$3,150.00
- **JimCoty Brown.** 2008. Undergraduate Research Fellowship. Mentor: Benjamin Malphrus (MSU) and Michael Carini (WKU). *Mutiwavelength Variability Studies of Blazars.* Morehead State University, Morehead, KY., August 2008. \$3,150.00
- **Daniel C. Graves.** 2008. Undergraduate Research Fellowship. Mentor: Thomas Pannuti. *An X-ray Search for Supernova Remnants in the Nearby Spiral Galaxy NGC 247.* Morehead State University, Morehead, KY., January 2008. \$1,404
- **Daniel C. Graves.** 2007. Undergraduate Research Fellowship. Mentor: Thomas Pannuti. *An X-ray Search for Supernova Remnants in the Nearby Spiral Galaxy NGC 247.* Morehead State University, Morehead, KY., September 2007. \$1,260
- **James W. Atwood.** 2007. Grant stipend. *Microvariability in Active Galactic Nuclei at Centimeter Wavelengths.* Kentucky Space Grant Consortium, August, 2007. \$5,000
- **Jennifer B. Carter.** 2007. Grant stipend. *Establishing VHF-UHF and S-Band Command Nodes for KySat-1.* NASA via Kentucky Space Grant Consortium, August, 2007. \$18,000
- **Jennifer B. Carter.** 2007. Grant stipend. *Kentucky Satellite (KySat) Initiative.* Kentucky Science and Technology Corporation (KSTC), May 1, 2007. \$3,750
- **Andrew F. Crowe.** 2007. Grant stipend. *Kentucky Satellite (KySat) Initiative.* Kentucky Science and Technology Corporation (KSTC), May 1, 2007. \$15,000
- **Prabhakara R. Eluru.** 2007. Grant stipend. *Kentucky Satellite (KySat) Initiative.* Kentucky Science and Technology Corporation (KSTC), May 1, 2007. \$18,500
- **Alexia Callihan.** 2007. Undergraduate Internship. Mentor: Jeff Kruth. *NASA ESMD Internships for Space Science Incubator Businesses.* K-MEC: Kentucky Space Grants Consortium, February 2007. \$6,000
- **Chadwick D. Clair.** 2007. Undergraduate Internship. Mentor: Bob Littlepage. *NASA ESMD Internships for Space Science Incubator Businesses.* LFInc: Kentucky Space Grants Consortium, February 2007. \$6,000
- **Andrew F. Crowe.** 2007. Undergraduate Internship. Mentor: Bob Littlepage. *NASA ESMD Internships for Space Science Incubator Businesses.* LFInc: Kentucky Space Grants Consortium, February 2007. \$6,000
- **Jim Cody Brown.** 2007. Undergraduate Internship. Mentor: Benjamin Malphrus. *NASA ESMD Internships for Space Science Incubator Businesses.* Kentucky Mine \$6,000

Communications: Kentucky Space Grants Consortium, February 2007.

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| • Jennifer Carter. 2006. Grant stipend. <i>Establishing the Ground Segment of the NASA Supernova/Acceleration Probe.</i> 7/1/06-6/30/07. Kentucky Space Grant Consortium. October 2, 2006. | \$15,000 |
| • James W. Atwood. 2006. Grant stipend. <i>Microvariability in Active Galactic Nuclei at 1420 MHz.</i> 7/1/06-6/30/07. Kentucky Space Grant Consortium. October 2, 2006. | \$4,000 |
| • Edward Brady Doepke. 2006. Grant stipend. <i>Galileo Orbiter Energetic Particle Study for the Jovian Magnetosphere.</i> 6/1/2006-9/30/2006. Kentucky Space Grant Consortium. June 21, 2006. | \$4,000 |
| • Jennifer Carter. 2006. Grant stipend. <i>Kentucky Satellite Project: Central Team Member.</i> 6/1/06-12/31/06. Kentucky Space Grant Consortium. June 7, 2006. | \$12,800 |
| • Megan Ennis. 2006. Undergraduate Research Fellowship. <i>Empirical Measurements of G/T of the Morehead State University 21 Meter Space Tracking System and Radio Telescope: Defining Antenna Gain and System Temperature.</i> Morehead State University, August 2006. | \$3120 |
| • Megan Ennis. 2006. Undergraduate Research Fellowship. <i>Empirical Measurements of G/T of the Morehead State University 21 Meter Space Tracking System and Radio Telescope: Defining Antenna Gain and System Temperature.</i> Morehead State University, February 2006. | \$1560 |
| • James W. Atwood. 2005. Undergraduate Research Fellowship. <i>Microvariability in Active Galactic Nuclei.</i> Morehead State University, August 2005. | \$4,000 |
| • Eric Hudson. 1999. Grant stipend. <i>NASA Academy – E. Hudson.</i> Mentor: Benjamin Malphrus. Kentucky Space Grant Consortium. April 1999. | \$3,500 |
| TOTAL: | \$294,101.50 |

STUDENT POSTERS & PRESENTATIONS

Tyler T. Burba, Nathan D. Fite, Daniel C. Graves, Tyler G. Rose, Benjamin K. Malphrus, Bob Twiggs, Jeffrey A. Kruth, (2010) *Morehead State University's Involvement in RAMPART*, Small Satellite Conference, Logan Utah, August 8, 2010

Nathan D. Fite, Brandon L. Molton, Tyler T. Burba, Tyler G. Rose, Daniel C. Graves, Bob Twiggs, Benjamin K. Malphrus, Jeffrey A. Kruth, (2010) *Design and Development of the FemtoSat Orbital Deployer (FOD) for Ejection of PocketQubs into Space*, Small Satellite Conference, Logan Utah, August 8, 2010

Bob Twiggs, **N. Fite,** B. Malphrus, (2010) *Upcoming Space Flight Opportunities*, Small Satellite Conference, Logan Utah, August 9, 2010

B. Malphrus, M. Combs, J. Kruth, **N. Fite,** B. Twiggs (Space Science Center, Morehead State University), R. Schulze Johns Hopkins University Applied Physics Laboratory, (2010) *A University-Based Ground Station: The 21 m Antenna at Morehead State University*, SpaceOps International Conference, Huntsville, AL, April 27, 2010.

Burba, Tyler T., Malphrus, B. K., Kruth, J. A. (2010) *Calibration of the miniature radio frequency for the Lunar Reconnaissance Orbiter.* Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 21, 2010.

- Goff, Emily J., Fite, Nathan D., Grimes, Caleb K., Tussey, Joshua M.,** and Pannuti, T.G. (2010) *A multi-wavelength study of the galactic supernova remnant CTA1*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 21, 2010.
- Graves, Daniel C., Fite, Nathan D., Burba, Tyler T.,** Bratcher, J. R., Erb, D. M., Karam, A. K., Jacobs, Z. A., Malphrus, B. K., Lumpp, J. E. (2010). *Kentucky Space: the sub-orbital CubeSat experimental mission*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 21, 2010.
- Grimes, Caleb K., Fite, Nathan D., Goff, Emily J., Tussey, Joshua M.,** Pannuti, T. G. (2010). *An overview of radio monitoring of radio-luminous blazars with the Morehead State University space tracking antenna*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 21, 2010.
- O'Brien, Julia,** Twiggs, R. J., and Malphrus, B. K. (2010). *Growing a satellite market sector in Morehead and eastern Kentucky*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 21, 2010.
- Molton, Brandon L., Brown, Kathleen M.,** Malphrus, B. K., Combs, M. S., Kruth, J. A. (2010). *Development of FlatSat, a new version of Ky-Sat-1 Orbital for software testing and subsystems development*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 21, 2010.
- Rose, Tyler G.,** Bailey, C. A., Blair, R. T., Koontz, K. L., **Burba, Tyler T., Graves, Daniel C.,** and Twiggs, R. J. (2010). *Developing an Interorbital Systems TubeSat at Morehead State University*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 21, 2010.
- Tussey, Joshua M.,** and Pannuti, T. G. (2010). *A search for x-ray counterparts to known optical and candidate radio supernova remnants in the nearby galaxy NGC 2403*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 21, 2010.
- Carter, Jennifer,** (2010) *A One-Carnegie High School Course in Astronomy and Space Science*, Kentucky Science Teachers Association Mid-Winter Conference, Morehead KY, February 20, 2010.
- Graves, Daniel C., Fite, Nathan D.,** Malphrus, B. K., Lump, J.E., Karam, A., Tammineni, B., **Molton, Brandon,** Klump, B., Erb, D., Hammers, D., Bratcher, J., Rexroat, J., **Fitzpatrick, Jonathan, Brown, Kathleen,** Kelsey, K., Sharma, K., Beck, M., Bezold, M., Torabi, M., Schulte, M., Padmanabhan, P., Rawashdeh, S., Ahmad, S., Clements, T., **Burba, Tyler T.,** Waniel, W., Jacobs, Z. (2010). *Kentucky Space: establishing a spaceflight heritage for the Commonwealth*. Posters-at-the-Capitol, Frankfort, KY. January 28, 2010
- Grimes, Caleb K., Fite, Nathan D., Spence, Angela C.,** and Pannuti, T. G. (2010) *A continuing campaign of radio monitoring observations of blazars with the Morehead State University 21-meter space tracking antenna*. 215th Meeting of the American Astronomical Society, Washington, DC, January 3-7, 2010.
- Pannuti, T. G., Allen, G. E., **Fite, Nathan D., Grimes, Caleb K., Goff, Emily J.,** and **Murray, Tiffany M.** (2010) *Radio and x-ray observations of the galactic supernova remnant G156.2+5.7*. 215th Meeting of the American Astronomical Society, Washington, DC, January 3-7, 2010.
- Aldridge, Tabitha, Skaggs, Doug,** Pannuti, T. G., (2009) *A multi wavelength (X-ray, optical and radio) survey for supernova remnants in nearby galaxies M101 and NGC4258*. 95th Annual Kentucky Academy of Science Meeting. Northern Kentucky University, November 14, 2009
- Erb, Daniel, Lumpp, J., Malphrus, B. K., (2009) *KySat-1: A Test-Bed for Small Satellite Technology*. 95th Annual Kentucky Academy of Science Meeting. Northern Kentucky University, November 14, 2009
- Pannuti, T. G., **Murray, Tiffany M.** (2009) *An Observation of the Galactic Supernova Remnant G352.7-0.1 with the Chandra X-Ray Observatory*. 95th Annual Kentucky Academy of Science Meeting. Northern Kentucky University, November 14, 2009

- Graves, Daniel C.,** Malphrus, B.K., Molten, B., Beck, M., Jacobs, Z., (2009) *High Altitude Comet Dust Collection Experiment*. 95th Annual Kentucky Academy of Science Meeting. Northern Kentucky University, November 14, 2009.
- Beck, Marc B., **Graves, D.C., Fite, N. D., Molton, B., Brown, K., Fitzpatrick, J.,** Malphrus, B. K., Jacobs, Z. (2009) *Kentucky Space High Altitude Balloon Mission to Gather Tropospheric Comet Dust*. 95th Annual Kentucky Academy of Science Meeting. Northern Kentucky University, November 14, 2009.
- Fite, Nathan D.,** Malphrus, B. K., Moore, G., Holemans, W., Huang, A., Twiggs, B., Kruth, J., (2009) *Atmospheric and Technological Exploration with the POPACS Satellite*. 95th Annual Kentucky Academy of Science Meeting. Northern Kentucky University, November 14, 2009.
- Graves, Daniel C.,** Thomas, E. (2009) *KY Sat 1- Kentucky's first satellite.(High School Teachers)* Kentucky Science Teachers Association, Lexington, KY. November 7, 2009.
- Fite, Nathan D.,** Thomas, E. (2009) *KY Sat 1- Kentucky's first satellite.(Applications for High School Teachers)* Kentucky Science Teachers Association, Lexington, KY. November 6, 2009,
- Carter, Jennifer,** (2009) *Establishing a One-Carnegie High School Course in Astronomy and Space Science*, Kentucky Science Teachers Association, Lexington, KY. November 6, 2009.
- Graves, Daniel C., Burba, Tyler,** and Twiggs, R. (2009) *CubeSats, NanoRacks, PocketQubs, and TubeSats – new ways to space*, AMSAT Space Symposium, Baltimore, MD. October 10, 2009.
- Pannuti, T. G., **Fite, Nathan D., Burba, Tyler T., Grimes, Caleb K.,** and **Graves, Daniel, C.** (2009) *Active galactic nuclei studies with Morehead State University 21-meter space tracking antenna: BL Lac, CTA 102 and 3C 454.3*. 214th Meeting of the American Astronomical Society, Pasadena, CA. June 7-11, 2009.
- Pannuti, T. G., **Fite, Nathan D.,** Schlegel, E. M., Wells, Thomas B., **Murray, Tiffany M.** (2009) *A search for x-ray counterparts to candidate radio supernova remnants in irregular galaxies with the Chandra X-ray Observatory*. 214th Meeting of the American Astronomical Society, Pasadena, CA. June 7-11, 2009.
- Beck, Marc B.,** Malphrus, B. K. (2009). *Remote operation and automation of the VHF/UHF system for tracking and controlling the KySat-1 satellite*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 23, 2009.
- Burba, Tyler T.,** Pannuti, T. G. (2009). *A catalog of extragalactic radio supernova remnants: luminosity, minimum energies and magnetic fields*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 23, 2009.
- Delgado, Jessamyn G.,** Jones, D., Malphrus, B. K. (2009). *A general breakdown of payload creation for the Kentucky Space Near Space balloon missions*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 23, 2009.
- Fite, Nathan D.,**and Pannuti, T. G. (2009). *A search for radio emission from gamma-ray blazars detected in outburst by Fermi*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 23, 2009.
- Graves, Daniel C.,** Pannuti, T. G. (2009). *An x-ray study of supernova remnants in nearby starburst galaxies*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 23, 2009.
- Grimes, Caleb K., Fite, Nathan D., Burba, Tyler T.,** and Pannuti, T. G. (2009) *Time variability of emission from radio luminous blazars*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 23, 2009.
- Molton, Brandon L., Brown, Kathleen M.,** Malphrus, B.K, Combs, M.S., and Kruth, J. A. (2009). *Development of FlatSat version of the KySat-1 orbital satellite for software testing and subsystems development*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 23, 2009.

- Murray, Tiffany M.** and Pannuti, T. G. (2009) *A Chandra x-ray observation of the supernova remnant G352.7-0.1*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 23, 2009.
- Smathers, Jason M.** and Malphrus, B. K. (2009) *Testing and characterization of the antenna and communications systems of the KySat-I orbiting satellite*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 23, 2009.
- Smathers, Jason M.** (2009) *Design and characterization of antenna systems for the KySat-1 orbiting satellite*. Posters-at-the-Capitol, Frankfort, KY. February 5, 2009.
- Carter, J. B.** (2008). *KySat - Teaching Newton's and Kepler's Laws*. 36th Conference and Professional Development, Kentucky Science Teachers Association, Lexington, KY, November 6-8, 2008.
- Smathers, J.** (2008). *Design and Characterization of Antenna Systems for the KySat-1 Orbiting Satellite*. 94th Annual Kentucky Academy of Science Meeting, Lexington, KY. November 1, 2008.
- Beck, M.** (2008). *Bit Error Rate Testing of the Microhard MHX-2400*. 94th Annual Kentucky Academy of Science Meeting, Lexington, KY. November 1, 2008.
- Staggs, W. D., Pannuti, T.G.,** and Chomiuk, L. A. (2008). *A Multi-Wavelength Search for Supernova Remnants in the Nearby Face-On Spiral Galaxy IC 342*. 94th Annual Kentucky Academy of Science Meeting, Lexington, KY. November 1, 2008.
- Graves, D. C. and Pannuti, T. G.** (2008). *Chandra Observations of the Nearby Starburst Galaxy NGC 253*. 94th Annual Kentucky Academy of Science Meeting, Lexington, KY. November 1, 2008.
- Crowe, A.** Biswajit Panja, Sherif Rashad and Benjamin Malphrus. (2008). *Database design and Implementation of KySat Orbital-1*. 14th Annual EPSCoR Conference, Louisville, KY. October 3, 2008.
- Pannuti, T.G., **Fite N. D.,** and Wells, T.B. (2008). *A study of extra-galactic supernova remnants in irregular galaxies with the Chandra X-ray Observatory*. 14th Annual EPSCoR Conference, Louisville, KY. October 3, 2008.
- Pannuti, T. G.,** Schlegel, E. M., Lacey, C. K., Filipovic, M. D., **Short, A. J. and Graves, D. C.** (2008). *A Chandra Observation of the Nearby Sculptor Group Sd Galaxy NGC 45*. The 212th Meeting of the American Astronomical Society, St. Louis, MO, American Astronomical Society Meeting Abstracts, 212, #19.09. June 2008.
- Rashika A. and Pannuti, T. G.,** (2008). *A study of the galactic supernova remnant G347.3-0.5 with the Chandra X-ray Observatory*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 2008.
- Atwood, J. W., Kruth, J., Malphrus, B.K. and Combs, M. S.** (2008). *Development of the radio astronomical calibration system of the Morehead State University 21m space tracking antenna*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 2008.
- Beck, M. B., and Pannuti, T.G.** (2008). *A NumPy program for producing FITS images from output from a space tracking antenna*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 2008.
- Ennis, M. Malphrus, B.K. and Kruth, J.** (2008). *Defining gain and system temperature of the Morehead State University 21-meter space tracking antenna*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 2008.
- Smathers, J. M. and Pannuti, T.G.** (2008). *Spatially resolving thermal and non-thermal X-ray emission from the Kepler supernova remnant*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 2008.

- Scott, R. and Carnevali, A.** (2008). *Added-mass effects on the motion of symmetric and asymmetric bodies in a fluid*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 2008.
- Scott, R. and Carnevali, A.** (2008). *Not so fast! A small correction to the standard projectile Motion demonstration*. Celebration of Student Scholarship, Morehead State University, Morehead, KY. April 2008.
- Graves, D. C. and Pannuti, T. G.** (2008). *Chandra X-ray Observations of the Nearby Starburst Galaxy NGC 253*. Morehead State University Annual Celebration of Student Scholarship, Morehead, KY. April 2008.
- Short, A. J. and Pannuti, T. G.** (2008). *X-ray Counterparts to Supernova Remnants in NGC 2403*. Morehead State University Annual Celebration of Student Scholarship, Morehead, KY. April 2008.
- Staggs, W.D. and Pannuti, T. G.** (2008). *An X-ray Search for Supernova Remnants in the Nearby Spiral Galaxies IC342 and NGC4258*. Celebration of Student Scholarship, Morehead State University, Morehead, KY, April 2008.
- Pannuti, T. G., Allen, G. E., Stage, M. D., Filipović, M. D., De Horta, A. and Agrawal, R.** (2008). *Modeling the Synchrotron Emission from the Northwestern Rim Complex of the Galactic Supernova Remnant G266.2 I.2*, 10th Meeting of the American Astronomical Society High Energy Astrophysics Division, Los Angeles, California, 10, #31.05. April 2008.
- Mason, C. E., Lee, P., **Ennis, M. E., Atwood, J. W., Smith, W.** (2008). *Establishment of an Undergraduate Research Program for the NASA Haughton-Mars Project*. 39th Lunar Planetary Sci. Conference, League City, TX. Published abstract # 2434. March 2008.
- Atwood, J. W. and Pannuti, T. G.**, *Microvariability in Active Galactic Nuclei at Centimeter Wavelengths*, 2008, 211th Meeting of the American Astronomical Society, Austin, TX, American Astronomical Society Meeting Abstracts, 211, #04.11. January 2008.
- Malphrus, B. K., Pannuti, T. G., Atwood, J. W. and Ennis, M. E.** (2008). *Centimeter-Wave Research with the Morehead State University 21 Meter Radio Telescope: Involving Undergraduate Students in Radio Astronomy Research*. 211th Meeting of the American Astronomical Society, Austin, TX, American Astronomical Society Meeting Abstracts, 211, #11.11. January 2008.
- Pannuti, T. G., Staggs, W. D., Atwood, J. W. and Schlegel, E. M.** (2008). *A Deep X-ray Search for Supernova Remnants in the Nearby Face-On Spiral Galaxy IC 34*. 211th Meeting of the American Astronomical Society, Austin, TX, American Astronomical Society Meeting Abstracts, 211, #100.18. January 2008.
- Carter, J. B.** (2007). *KySat Ground Station at MSU*. Morehead Men's Club, Morehead, KY. December 5, 2007
- Ennis, M. E., Mason C.E., Atwood, J. W. and Smith, W.** (2007). *Establishment of an Undergraduate Research Program for the NASA Haughton-Mars Project*. 93rd Annual Kentucky Academy of Science Meeting, Louisville, KY. November 8-10, 2007.
- Beck, M. and Pannuti, T.G.** (2007). *A NumPy Program for Producing FITS Images from Observations Made with the 21-Meter Space Tracking Antenna at Morehead State University*. 93rd Annual Kentucky Academy of Science Meeting, Louisville, KY. November 8-10, 2007.
- Carter, J. B. and Malphrus, B. K.** (2007). *Ground Operations of the Kentucky Satellite*. 93rd Annual Kentucky Academy of Science Meeting, Louisville, KY. November 8-10, 2007.
- Eluru, R. and Malphrus, B. K.** (2007). *KySat ground station: VHF/UHF system*. 93rd Annual Kentucky Academy of Science Meeting, Louisville, KY. November 8-10, 2007.
- Atwood, J. W. Malphrus, B. K., Pannuti, T. G., Combs, M. and Callihan, A.** (2007) *Development*

and Implementation of the Radio Astronomical Calibration System of the Morehead State University 21m Space Tracking Antenna. (2007). 93rd Annual Kentucky Academy of Science Meeting, Louisville, KY. November 8-10, 2007.

Pannuti, T. G., Staggs, W.D. and Atwood, J.W. - Morehead State University, Eric M. Schlegel - University of Texas-San Antonio. (2007). *A Deep Search for X-ray Counterparts to Supernova Remnants in IC 342 with XMM-Newton.* 93rd Annual Kentucky Academy of Science Meeting, Louisville, KY. November 8-10, 2007.

Ennis, M. E., Mason C.E., **Atwood, J. W.** and Smith, W. (2007). *Establishment of an Undergraduate Research Program for the NASA Haughton-Mars Project.* 93rd Annual Kentucky Academy of Science Meeting, Louisville, KY. November 8-10, 2007.

Ennis, M.E., Malphrus, B. K., Kruth, J. and Atwood, J. W. (2007). *Development of a G/T Elevation Profile of the Morehead State University 21 Meter Space Tracking System and Radio Telescope.* 93rd Annual Kentucky Academy of Science Meeting, Louisville, KY. November 8-10, 2007.

Carter, J. B. (2007). *Kentucky Satellite (KySat): Ground Operations of a Small Satellite as an Educational Tool.* National Association of Industrial Technology (NAIT) Conference. Panama City, FL, October 2007.

Pannuti, T.G., Schlegel, E.M., and **Griffith, S.A.** (2007). *A Search for Chandra-Detected Counterparts to Optically-identified Supernova Remnants and Candidate Radio Supernova Remnants in Nearby Spiral Galaxies.* 13th Annual Kentucky EPSCoR Conference. Lexington, KY. October 2, 2007.

Carter, J. B., Malphrus, B.K., and Kruth, J. (2007). *Establishing VHF/UHF and S-Band Command Nodes for KySat-1.* 13th Annual Kentucky EPSCoR Conference. Lexington, KY. October 2, 2007.

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