

## Curriculum Vitae

### **D. Michael Crenshaw**

Distinguished University Professor  
Department of Physics and Astronomy  
Georgia State University  
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### **Education**

Ph.D., in Astronomy, The Ohio State University, 1985  
B.S., cum laude, in Physics, Georgia State University, 1979

### **Administration**

Director, Research Experiences for Undergraduates (REU) in Astronomy and Physics program, Georgia State University (November 2021 – present)  
Chair, Board of Governors, Astrophysical Research Consortium (July 2017 – present)  
Chair, Department of Physics and Astronomy, Georgia State University (June 2012 – June 2018)  
Graduate Director for Astronomy, Department of Physics and Astronomy, Georgia State University (November 2011 – May 2012)

### **Academic Positions**

Distinguished University Professor, Georgia State University (July 2016 – present)  
Full Professor, Department of Physics and Astronomy, Georgia State University (August 2007 – present)  
Associate Professor, Department of Physics and Astronomy, Georgia State University (August 2001 – July 2007)

### **Other Positions**

Research Assistant Professor, Department of Physics, The Catholic University of America (January 1997 – July 2001)  
Goddard High Resolution Spectrograph (GHRS) Research Associate, Computer Sciences Corporation, NASA's Goddard Space Flight Center (January 1990 – September 1997)  
Adjunct Associate Professor, University of Maryland (September 1988 – July 1994)  
International Ultraviolet Explorer (IUE) Resident Astronomer, Computer Sciences Corporation, NASA's Goddard Space Flight Center (July 1985 – December 1989)

### **Teaching Experience**

Department of Physics and Astronomy, Georgia State University (August 2001 – present): undergraduate introductory astronomy courses, introduction to physics, graduate courses on the interstellar medium and extragalactic astronomy  
Department of Astronomy, University of Maryland (September 1988 – July 1994): introductory astronomy

**Service Experience (at Georgia State University)**

Board of Governors for GSU's Partnership with the Astrophysical Research Consortium  
on the Apache Point 3.5-m Telescope (November 2014 - present)  
GSU Representative for the Association of Universities for Research in Astronomy  
(AURA) (May 2014 – May 2023)  
Member of the International Astronomical Union's Commission on Supermassive Black  
Holes, Feedback, and Galaxy Evolution (June 2018 – present)  
Undergraduate Research Committee, Chair (August 2018 – present)  
Department Publicity Committee (August 2018 – present)  
Astronomy Graduate Admissions Committee (August 2018 – present)  
Department Service Evaluation Committee (September 2023 – present)  
Astronomy Ph.D. Qualifying Examination Committee (August 2018 – present)  
Faculty Search Committees: Academic Professional (Chair, 2020), Extragalactic (2020,  
2023), Condensed Matter (Chair, 2021)  
Search Committee, Associate Deans for Faculty Development and Faculty Evaluation,  
College of Arts and Sciences, GSU (March 2017 – April 2017)  
Search Committees, Director of the Apache Point Observatory, Director of After Sloan  
IV (October – December 2016)  
Search Committee, Associate Provost for Faculty Affairs (October 2015 – January 2016)  
Dean's Triennial Evaluation Committee (January 2015 – March 2015)  
Undergraduate Advisor for Astronomy (August 2009 – May 2012)  
Astronomy Club Advisor (August 2009 – May 2012)  
Society of Physics Students (SPS) Advisor (August 2008 – May 2012)  
Executive Committee, Department of Physics and Astronomy (August 2009 – May 2012)  
Promotion and Tenure Committee, Department of Physics and Astronomy (August 2008  
– May 2012)  
Curriculum Committee, Department of Physics and Astronomy (June 2008 – May 2012)  
Astronomy Summer Student Program Committee, Co-Chair (August 2001 – May 2012)  
Introductory Astronomy Textbook Committee (August 2001 – May 2012)  
Astronomy Graduate Curriculum Committee (August 2001 – May 2012)  
Astronomy Graduate Recruitment Committee (August 2001 – May 2012)  
Astronomy Ph.D. Qualifying Examination Committee (August 2001 – May 2012)  
Coordinator for SPS Sponsored Competitions, Georgia Science Olympiad  
Tournament at GSU (February 2009)  
Faculty Awards Committee, College of Arts and Sciences (August 2005 – August 2007),  
Chair (August 2005 – August 2006)  
Executive Committee, College of Arts and Sciences (August 2004 – August 2006)  
Geosciences Fact-Finding Subcommittee Chair (Exec. Comm.) (October 2005)  
Coordinator for annual “Reach for the Stars” event, Georgia Science Olympiad  
Tournament at GSU (2003 – 2005)

**Business and Professional Experience (at NASA's Goddard Space Flight Center)**

Operation of astronomical satellites (1985 – 1989)  
Calibration of astronomical instrumentation (1985 – 1997)  
Flight software testing (1985 – 1997)

## **Courses Taught at Georgia State University**

Astr 1000 – introduction to the Universe  
Phys 1000 – gateway to physics  
Astr 1010 – introductory solar system astronomy  
Astr 1020 – introductory stellar and extragalactic astronomy  
Astr 4010 – undergraduate astronomical methods laboratory  
Phys 4900 – undergraduate research project  
Phys 4950 – senior research  
Astr 8300 – graduate interstellar medium  
Astr 8400 – graduate extragalactic astronomy  
Astr 8710 – research topics in astronomy  
Astr 8900 – graduate seminar in astronomy  
Astr 8910 – directed study in astronomy  
Astr 9999 – doctoral dissertation research

## **Doctoral Dissertations Supervised (previous and current)**

José R. Ruiz, CUA, “Examining the Kinematics of Narrow-Line Region Gas in Active Galaxies using the Hubble Space Telescope” (Ph.D. received October 2003)  
Varendra Das, GSU, “Kinematics of the Narrow-Line Regions in the Seyfert Galaxies NGC 4151 and NGC 1068” (Ph.D. received August 2006)  
Rajesh Deo, GSU, “Dust within the Central Regions of Seyfert Galaxies” (Ph.D. received August 2007)  
Jay P. Dunn, GSU, “Intrinsic Absorption with the Far Ultraviolet Spectroscopic Explorer” (Ph.D. received December 2007)  
Margaret Trippe, GSU, “A Multiwavelength Investigation of Seyfert 1.8 and 1.9 Galaxies” (Ph.D. received August 2009)  
Stephen Rafter, GSU, “Fundamental Properties of Low-Redshift AGN in the Sloan Digital Sky Survey” (Ph.D. received May 2010)  
Travis Fischer, GSU, “Determining the Inclinations of Active Galactic Nuclei Using Narrow-Line Region Kinematics” (Ph.D. received August 2012)  
Mitchell Revalski, GSU, “Quantifying Feedback from Narrow Line Region Outflows in Nearby Active Galaxies” (Ph.D. received August 2018)  
Beena Meena, GSU, “The Dynamics of Narrow Line Region Outflows in Nearby Active Galaxies”, (Ph.D. received August 2022)  
Julia Falcone, GSU, “Feeding and Feedback in the Seyfert 1 Galaxy NGC 3227” (ongoing)  
Maura Shea, GSU, “Ionized Gas Flows in the Compact Galaxy Group Stephan's Quintet and its Active Galaxy NGC 7319” (ongoing)

## **Master’s Theses Directed**

Justin P. Gagne, “Spatially Resolved Spectra of the Teacup Active Galactic Nucleus: Tracing the History of a Dying Quasar” (M.S. received May 2014).  
Crystal (Pope) Gnilka, “Gemini Near-Infrared Field Spectrograph Observations of the Seyfert 2 Galaxy Mrk 3: Feeding and Feedback on Galactic and Nuclear Scales” (M.S. received May 2015).

Garrett E. Polack, "Narrow-Line Region Outflows in a Sample of Nearby Seyfert Galaxies" (ongoing)

**Additional Doctoral Dissertation Committees (completed)**

Jack R. Gabel, "The Physical Nature of Low-Ionization Nuclear Emission Line Regions and their Relation to Active Galactic Nuclei" (CUA, Ph.D. received October 2000)

M. Virginia McSwain, "The Evolution of Massive Stars: The Be Star and Microquasar Phenomenon" (GSU, Ph.D. received May 2004)

Amy. M. Campbell, "The Character of Optical Variability for X-ray Selected Blazars" (GSU, Ph.D. received May 2004)

John P. McFarland, "Rest-Frame Variability Characteristics of Blazars" (GSU, Ph.D. received May 2005)

Nick R. Collins, "Photoionization Models of the Narrow-Line Region in the Seyfert Galaxy Mrk 3" (The Catholic University of America, Ph.D. received May 2006)

Paramita Barai, "Modeling the Power Evolution of Classical Double Radio Galaxies over Cosmological Scales" (GSU, Ph.D. received August 2006)

M. Angela Osterman, "New Multiwavelength Variability and Optical Microvariability Investigations of X-ray and Radio Loud Selected Blazars" (GSU, Ph.D. received December 2006)

Kevin Marshall, "X-ray Variability of Seyfert Galaxies" (GSU, Ph.D. received December 2006)

Eunwoo Choi, "Numerical Hydrodynamics of Relativistic Extragalactic Jets" (GSU, Ph.D. received May 2007)

Marcio Melendez, "Constraining the AGN Contribution in a Multiwavelength Study of Seyfert Galaxies (Catholic University of America, Ph.D. received May 2008)

Wesley Ryle, "Investigation of Fundamental Black Hole Properties of AGN Through Optical Variability" (GSU, Ph.D. received August 2008)

Paola Rodriguez Hidalgo, "High Velocity Outflows in Quasars" (University of Florida, Ph.D. received December 2008)

Sebastian Zamfir, "Sloan Digital Sky Survey QSOs in the Context of the 4D Eigenvector 1 Parameter Space" (University of Alabama, Ph.D. received May 2009)

Ayao Mamert Sossah, "Photoionization of the Potassium Isoelectronic Sequence: Ca<sup>+</sup> and Transition Metal Ions" (GSU, Ph.D. received August 2010)

Megan Johnson, "The Evolution of Dwarf Irregular Galaxy NGC 1569: A Kinematic Study of the Stars and Gas" (GSU, Ph.D. received August 2011).

Branyon May, "Multiwavelength Selection of Obscured AGN and Contributions to the X-ray Background" (University of Alabama, Ph.D. in Physics received August 2011)

Aden Draper, "Understanding the Connection Between Active Galactic Nuclei and Host Star Formation Through Multi-Wavelength Population Synthesis Modeling" (Georgia Institute of Technology, Ph.D. received December 2012)

Joseph Eggen, "Optical Polarimetry and Gamma-ray Observations of a Sample of Radio-Loud Narrow Line Seyfert 1 Galaxies" (GSU, Ph.D. received May 2014)

Jeremy Maune, "Detection of Microvariability in a New Class of Blazar-Like AGN" (GSU, Ph.D. received May 2014)

Mohammad Javani, "Photoionization of Fullerenes and Atoms Confined in Fullerenes", Committee member (GSU, Ph.D. received December 2014)

- Emily Manne-Nicholas, "Determining the Mass of the Supermassive Black Hole in NGC 6814" (GSU, Ph.D. received May 2017)
- Jullianna Couto, "New Insights into AGN Mass Outflows: Detailed Study of the Spectral Properties of NGC 4151" (The Catholic University of America, Ph.D. May 2017)
- Wesley Peters, "Characterizing Bars in Low Surface Brightness Galaxies" (GSU, Ph.D. received May 2019)
- Caroline Roberts, "The Supermassive Black Hole Mass of NGC 4151 from Stellar Dynamical Modeling" (GSU, Ph.D. received May 2019)
- Ahmad Razavi, "Photoionization and Structure of the Superheavy Atoms Og, Cn, and No", (GSU Ph.D. received May 2021)
- Bayat Barooni, "Considering different research-based activities by using a k-means cluster analysis", (GSU Ph.D. received May 2021)
- Chun Fai Tung, "A Multi-messenger Approach to Neutrino Astronomy" (Georgia Tech Ph.D., received May 2021)
- Bokyoung Kim, "A Catalog of Stars in the Local Galactic Halo in Gaia EDR3 and Their Kinematics" (GSU, Ph.D. received August 2021)
- Mathew Anderson, "Methods for High Resolution Study of the Geometry of Active Galactic Nuclei with Applications of Reverberation Mapping and Optical Interferometry" (GSU Ph.D. received May 2022)
- Rachael Merritt, "The Spectral Energy Distributions of Active Galactic Nuclei with Direct Black Hole Mass Measurements" (GSU, Ph.D. received May 2022)
- Justin Robinson, "Fundamental Properties of Active Galaxies: Distances and Black Hole Masses of Nearby Seyferts" (GSU, Ph.D. received May 2022)
- Anna Luiza Trindade Falcão, "Spatially-Resolved Mass Outflows in QSOs: Implications for AGN Feedback" (The Catholic University of America, Ph.D. received May 2022)

#### **Additional Master's Thesis Committees (completed)**

- Alana May, "Testing the Sersic Bulge – Black Hole Mass Relation in Seyfert Galaxies" (University of Alabama, M.S. received May 2010)
- Hannah Marine Clemens, "Microvariability of the Quasar 3C 279" (GSU, M.S. received August 2010)
- Erin Darnell, "Diffuse Ionized Regions in the Vicinity of Active Galaxies" (University of Alabama, M.S. in Physics received December 2011)
- Greggory Rothmeier, "Brain Tissue Temperature Dynamics During Functional Activity and Possibilities of Optical Measurement Techniques", (GSU, M.S. in Physics received May 2012)
- Karen Garcia, "Photometric and Kinematic Modeling of Dwarf Galaxies" (GSU, M.S. in Physics received May 2017)

#### **Additional Students Supervised**

- 2 high school senior projects (1992, 1999)
- 25 undergraduate research projects (1987 – present)
- 6 additional graduate research projects (1987 – present)

### **Postdoctoral Researchers Supervised**

Dr. Jack R. Gabel, CUA (January 2001 – August 2003)  
Dr. Matthias Dietrich, GSU (October 2002 – September 2004)  
Dr. Travis C. Fischer, GSU (September 2012 – August 2015)

### **Editorial/Review Activities**

1. Referee for articles in the Astrophysical Journal (ApJ), the Astronomical Journal (AJ), Monthly Notices of the Royal Astronomical Society (MNRAS), Astronomy & Astrophysics (A&A), Publications of the Astronomical Society of the Pacific (PASP), Astrophysics and Space Science (Ap&SS), Publications of the Astronomical Society of Japan (PASJ), Nature, Nature Astronomy (1986 – present)
2. Member of National Science Foundation (NSF) Career Award in Astronomy panel (October 2021)
3. Member of peer review committees for proposals to use the International Ultraviolet Explorer (IUE), the Extreme Ultraviolet Explorer (EUVE), the Chandra X-ray Observatory (CXO), the Galaxy Evolution Explorer (GALEX), the Hubble Space Telescope (HST), the James Webb Space Telescope (JWST), and NASA's Astrophysics Data Analysis Program (ADAP), Gran Telescopio Canarias (1988 – present)
4. Chair of CXO Peer Review Panel on Active Galactic Nuclei (June 2004, June 2014)
5. Member of Chandra Fellowship Committee (January 2007), Hubble Fellowship Committee (January 2016), and NASA Postdoctoral Program (2015, 2016)
6. Member of NSF review panels for Research Experiences for Undergraduates proposals and Astronomy & Astrophysics Research Grants (2007 – present)
7. Referee for National Science Foundation (NSF), Natural Sciences and Engineering Research Council (NSERC, Canada), Netherlands Organization for Scientific Research (NWO), Cerro Tololo Inter-American Observatory (CTIO), and U.S. Civilian Research and Development Foundation (CRDF) proposals (1998 – present)
8. External reference writer for promotion and tenure evaluations at Creighton University, Rhodes College, Bucknell University, University of California at Riverside, University of Haifa, University of Oklahoma, University of Colorado, Space Telescope Science Institute, Western University, Dartmouth College, Wayne State University (2013 – present).

### **Internal Grants (Crenshaw as GSU Co-PI, 2001 – present)**

1. “Program in Extragalactic Astronomy”, GSU Research Program Enhancement (non-competing renewal), 7/1/02 - 6/30/05, \$135K

### **External Grants (Crenshaw as GSU Principal Investigator, 2001 – present)**

1. "Post-COSTAR FOS Spectra of Quasars", Harvard-Smithsonian Center for Astrophysics, 10/1/01 - 9/30/02, \$22.9K
2. "Determining the Nature of the Variable Absorption in AGN: Monitoring NGC 3783 with HST and Chandra", Space Telescope Science Institute, NASA, 9/1/01 - 8/31/03, \$132.2K
3. "Simultaneous HST/Chandra Observations of the X-ray/UV Absorbers in Seyfert 1 Galaxies", Space Telescope Science Institute, NASA, 9/1/01 - 8/31/03, \$25.9K
4. "Resolving the Warm Absorber in NGC 5548", Space Telescope Science Institute, NASA, 2/1/02 - 1/31/04, \$36.3K
5. "Resolving the Warm Absorber in NGC 5548", Chandra X-ray Observatory, NASA, 2/4/02 - 2/3/04, \$41.9K
6. "Revealing the Nature of the X-ray Absorption in NGC 4151", Space Telescope Science Institute, NASA, 5/1/02 - 4/30/04, \$24.7K
7. "Connecting the UV and X-ray Absorbers in NGC 5548", Space Telescope Science Institute, NASA, 2/1/04 - 1/31/06, \$17.1K
8. "AGN Black Hole Masses from Stellar Dynamics", Space Telescope Science Institute, NASA, 2/1/04 - 1/31/06, \$11.7K
9. "Radial-Velocity Variations of an Intrinsic Absorber in NGC 3783", Far Ultraviolet Spectroscopic Explorer program, NASA, 5/1/04 - 4/30/05, \$38.7K
10. "A Comprehensive FUSE Survey of Mass Outflow from AGN", Astrophysics Data Program, NASA, 1/15/05 - 1/14/08, \$189.0K (\$61.2K received for 1<sup>st</sup> year, \$63.0K received for 2<sup>nd</sup> year, \$64.8K received for 3<sup>rd</sup> year)
11. "Variable Absorption in the Seyfert Galaxy NGC 3516: Evidence for an Accretion-Disk Wind?", Far Ultraviolet Spectroscopic Explorer program, NASA, , 7/1/06 – 6/30/08, \$25.0K
12. "Are Narrow-Line Seyfert 1 Galaxies Viewed Pole-on?", Space Telescope Science Institute, NASA, 6/1/09 – 5/30/11, \$50.8K
13. "Deconstructing AGN X-ray Spectra", Space Telescope Science Institute, NASA, 12/1/09 – 11/30/11, \$30.4K
14. "Probing the Highest Ionization Gas in the Narrow-Line Regions of Active Galaxies", Astrophysics Data Analysis Program, NASA, 12/16/09 – 12/15/13, \$171.2K

15. "What are the Locations and Kinematics of Mass Outflows in AGN?", Space Telescope Science Institute, NASA, 11/1/10 – 10/31/13, \$133.2K
16. "What are the Mechanisms of Feeding and Feedback in Nearby AGN?", National Science Foundation, 9/1/12 – 8/31/16, \$447.4K
17. "What is the Impact of Narrow-Line Region Outflows on AGN Feedback?", Space Telescope Science Institute, NASA, 11/1/15 – 6/30/20, \$77.0K
18. "Are Narrow Line Region Outflows an Effective Mode of AGN Feedback?", Space Telescope Science Institute, NASA, 12/1/20 – 11/30/23, \$43.1K
19. "Astronomy and Physics at Georgia State University: From the Largest to Smallest Scales in the Universe", NSF Research Experiences for Undergraduates, 11/1/21 – 10/31/24, \$304.8K

### **Professional Affiliations**

American Astronomical Society  
International Astronomical Union  
American Physical Society  
Sigma Pi Sigma Physics Honor Society

### **Other Professional Activities**

Scientific Organizing Committee for "AGN Winds on the Chesapeake" conference,  
Easton, MD (June 2023)  
Scientific Organizing Committee for "Apache Point Observatory Science Symposium"  
(July 2021)  
*James Webb Space Telescope* Budget Task Force (2021)  
Chair of Scientific Organizing Committee for "AGN Winds in Georgia" conference,  
Jekyll Island, GA (June 2017)  
Space Telescope and Optical Reverberation Mapping (STORM) project member (2014 –  
2020)  
*Hubble Space Telescope* Financial Review Committee (August 2011 – December 2012)  
Scientific Organizing Committee for "AGN Winds in Charleston" conference,  
Charleston, SC (October 2011)  
Multi-mission Archive at Space Telescope (MAST) Users Group (MUG) (July 2009 –  
September 2011)  
Scientific Organizing Committee for "Future Directions in Ultraviolet Spectroscopy"  
conference, Baltimore, MD (October 2008)  
Scientific Organizing Committee for "The Central Engine of AGN" conference, Xian,  
China (October 2006)  
Scientific Organizing Committee for "AGN Winds in the Caribbean" conference,  
Virgin Islands (November 2005)

NASA's FUSE Observers Advisory Committee (June 2004 – November 2007)  
Press Release on “Galactic Bars Feed Supermassive Black Holes” at the American  
Astronomical Society Meeting, Nashville, TN (26 May 2003)  
Co-chair of workshop on “Mass Outflow in AGN”, CUA (March 2001)  
Central Committee for the International AGN Watch (1988 – 2002)

### **Honors and Awards**

Distinguished University Professor, Georgia State University (2016 – present)  
CSC Professional Paper Honorarium Award (1991, 1995, 1997)  
NASA Group Achievement Award: HST GHRS Development Team (1991)  
NASA Group Achievement Award: IUE Operations (1988)  
Lowell Observatory Summer Fellow (1983)

## **Publications in Refereed Journals** (190 refereed publications, h-index = 61)

1. “No Small-scale Radio Jets Here: Multi-epoch Observations of Radio Continuum Structures in NGC 1068 with the VLBA”, Fischer, T.C., Johnson, M.C., Secrest, N.J., Crenshaw, D.M., & Kraemer, S. B. 2023, ApJ, 953, 87
2. “A UFO Seen Edge-on? Resolving Ultrafast Outflow Emission on 200 pc Scales with Chandra in the Active Nucleus of Mrk 34”, Maksym, P., Elvis, M., Fabbiano, G., Trindade Falcao, A., Kraemer, S.B., Fischer, T.C., Crenshaw, D.M., & Storchi-Bergmann, T. 2023, ApJ, 951, 146.
3. “The AGNIFS survey: spatially resolved observations of hot molecular and ionized outflows in nearby active galaxies”, Riffel, R.A., et al. 2023, MNRAS 521, 1832.
4. “Investigating the Narrow Line Region Dynamics in Nearby Active Galaxies”, Meena, B., Crenshaw, D.M., Schmitt, H.R., Revalska, M., Chapman, Z., Fischer, T.C., Kraemer, S.B., Robinson, J.G., Falcone, J., & Polack, G.E. 2023, ApJ, 943, 98.
5. “Quantifying Feedback from Narrow Line Region Outflows in Nearby Active Galaxies. IV. The Effects of Different Density Estimates on the Ionized Gas Masses and Outflow Rates”, Revalska, M., Crenshaw, D.M., et al. 2022, ApJ, 930, 14.
6. “Tracking X-ray outflows with optical/infrared footprint lines”, Trindade Falcao, A., Kraemer, S.B., Crenshaw D.M., et al. 2022, MNRAS, 511, 1420.
7. “Radiative Driving of the AGN Outflows in the Narrow-line Seyfert 1 Galaxy NGC 4051”, Meena, B., Crenshaw, D.M., Schmitt, H.R., Revalska, M., Fischer, T.C., Polack, G.E., Kraemer, S.B., & Dashtamirova, D. 2021, ApJ, 916, 31.
8. “Hubble Space Telescope [O III] emission-line kinematics in two nearby QSO2s: a case for X-ray feedback”, Trindade Falcao, A., Kraemer, S.B., Fischer, T.C., Crenshaw, D.M., et al. 2021, MNRAS, 505, 3054.
9. “The AGNIFS survey: distribution and excitation of the hot molecular and ionized gas in the inner kpc of nearby AGN hosts”, Riffel, R.A., et al. 2021, MNRAS 504, 3265.
10. “Gauging the effect of supermassive black holes feedback on quasar host galaxies”, de Oliveira, B. Dall'Agnol, et al. 2021, MNRAS, 504, 3890.
11. “Tully-Fisher Distances and Dynamical Mass Constraints for 24 Host Galaxies of Reverberation-mapped AGNs”, Robinson, J.H., et al. 2021, ApJ, 912, 160.
12. “Quantifying Feedback from Narrow Line Region Outflows in Nearby Active Galaxies. III. Results for the Seyfert 2 Galaxies Markarian 3, Markarian 78, and NGC 1068”, Revalska, M., et al. ApJ, 2021, 910, 139.

13. “Hubble Space Telescope observations of [O III] emission in nearby QSO2s: physical properties of the ionized outflows”, Trindade Falcao, A., Kraemer, S.B., Fischer, T.C., Crenshaw, D.M., et al. 2021, MNRAS, 500, 1491.
14. “Space Telescope and Optical Reverberation Mapping Project. XII. Broad-line Region Modeling of NGC 5548”, Williams, P.R., Pancoast, A., Treu, T., et al. 2021, ApJ, 902, 74.
15. “Gemini Near Infrared Field Spectrograph Observations of the Seyfert 2 Galaxy Mrk 3: Feeding and Feedback on Galactic and Nuclear Scales”, Gnilka, C.L., Crenshaw, D.M., Fischer, T.C., Revalski, M., Meena, B., Martinez, F., Polack, G.E., Machuca, C., Dashtamirova, D., Kraemer, S.B., Schmitt, H.R., Riffel, R.A., & Storchi-Bergmann, T. 2020, ApJ., 893, 80.
16. “Mass outflow of the X-ray emission line gas in NGC 4151”, Kraemer, S.B., Turner, T.J., Couto, J.D., Crenshaw, D.M., Revalski, M., & Fischer, T.C. 2020, MNRAS, 493, 3893.
17. “Space Telescope and Optical Reverberation Mapping Project. IX. Velocity-Delay Maps for Broad Emission Lines in NGC 5548”, Horne, K., et al. 2020, ApJ, in press.
18. “A Dissection of Spatially Resolved AGN Feedback across the Electromagnetic Spectrum”, Fischer, T., Smith, K. L., Kraemer, S., et al. 2019, ApJ, 887, 200.
19. “Outflowing gas in a compact ionization cone in the Seyfert 2 galaxy ESO 153-G20”, Soto-Pinto, P., Nagar, N. M., Finlez, C., et al. 2019, MNRAS, 489, 4111.
20. “A nuclear ionized gas outflow in the Seyfert 2 galaxy UGC 2024”, Muñoz-Vergara, D., Nagar, N. M., Ramakrishnan, V., et al. 2019, MNRAS, 487, 3679.
21. “Space Telescope and Optical Reverberation Mapping Project. VIII. Time Variability of Emission and Absorption in NGC 5548 Based on Modeling the Ultraviolet Spectrum”, Kriss, G. A., De Rosa, G., Ely, J., et al. 2019, ApJ, 881, 153.
22. “Space Telescope and Optical Reverberation Mapping Project. X. Understanding the Absorption-line Holiday in NGC 5548”, Dehghanian, M., Ferland, G. J., Kriss, G. A., et al. 2019, ApJ, 877, 119.
23. “Bipolar Ionization Cones in the Extended Narrow-line Region of Nearby QSO2s”, Storchi-Bergmann, T., Dall’Agnol de Oliveira, B., Longo Micchi, L.F., Schmitt, H.R., Fischer, T.C., Kraemer, S., Crenshaw, M., Maksym, P., Elvis, M., Fabbiano, G., & Colina, L. 2018, ApJ, 868, 14.
24. “Quantifying Feedback from Narrow Line Region Outflows in Nearby Active Galaxies. II. Spatially Resolved Mass Outflow Rates for the QSO2 Markarian 34”,

- Revalski, M., Dashtamirova D., Crenshaw, D.M., Kraemer, S.B., Fischer, T.C., Schmitt, H.R., Gnilka, C.L., Schmidt, J., Elvis, M., Fabbiano, G. Storchi-Bergmann, T., Maksym, W.P., & Gandhi, P. 2018, ApJ, 867, 88.
25. “An Outflow in the Seyfert ESO 362-G18 Revealed by Gemini-GMOS/IFU Observations.”, Humire, P.K., et al. 2018, A&A, 614, 94.
26. “Outflows in the Narrow-line Region of Bright Seyfert galaxies - I. GMOS-IFU Data”, Freitas, I.C., et al. 2018, MNRAS, 476, 2760.
27. “Hubble Space Telescope Observations of Extended [O III]  $\lambda$ 5007 Emission in Nearby QSO2s: New Constraints on AGN Host Galaxy Interaction”, Fischer, T.C., et al. 2018, 856, 102.
28. “Quantifying Feedback from Narrow Line Region Outflows in Nearby Active Galaxies. I. Spatially Resolved Mass Outflow Rates for the Seyfert 2 Galaxy Markarian 573.” Revalski, M. Crenshaw, D. M., Kraemer, S.B., Fischer, T.C., Schmitt, H.R., & Machuca, C. 2018, ApJ, 856, 201.
29. “Gemini NIFS survey of feeding and feedback processes in nearby active galaxies – II. The sample and surface mass density profiles.” Riffel, R., A., et al. 2018, MNRAS, 464, 132
30. “Evolution of the Outflows in NGC 3516”, Dunn, J.P., Parvaresh, R., Kraemer, S.B., & Crenshaw, D.M. 2018, ApJ, 854, 166.
31. “Gemini Near Infrared Field Spectrograph Observations of the Seyfert 2 Galaxy Mrk 573: In Situ Acceleration of Ionized and Molecular Gas Off Fueling Flows”, Fischer, T.C., Machuca, C., Diniz, M.R., Crenshaw, D.M., Kraemer, S.B., Riffel, R.A., Schmitt, H.R., Baron, F., Storchi-Bergmann, T., Straughn, A., Revalski, M., & Pope, C.L. 2017, ApJ, 834, 30.
32. “BAT AGN Spectroscopic Survey. I. Spectral Measurements, Derived Quantities, and AGN Demographics”, Koss, M., et al. 2017, ApJ, 850, 74,
33. “BAT AGN Spectroscopic Survey - III. An observed link between AGN Eddington ratio and narrow-emission-line ratios”, Oh, K., et al. 2017, MNRAS, 464, 1466.
34. “Space Telescope and Optical Reverberation Mapping Project. VII. Understanding the Ultraviolet Anomaly in NGC 5548 with X-Ray Spectroscopy”, Mathur, S.M., et al. 2017, ApJ, 846, 55.
35. “Disentangling the near-infrared continuum spectral components of the inner 500 pc of Mrk 573: two-dimensional maps”, Diniz, M.R., Riffel, R.A., Riffel, R., Crenshaw, D.M., Storchi-Bergmann, T., Fischer, T.C., Schmitt, H.R., & Kraemer, S.B., 2017, MNRAS, 469, 3286.

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## **Review Articles**

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## **Refereed Proceedings (since August 2001)**

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23. "One Week with Chandra: A Long Look at NGC 5548", Kaastra, J.S., Steenbrugge, K.C., Brinkman, A.C., Crenshaw, D.M., Kraemer, S.B., Paerels, F.B.S., Liedahl, D.A., George, I.M., Turner, T.J., & Yaqoob, T. 2003, in *Active Galactic Nuclei: From Central Engine to Host Galaxy*, ed. S. Collin, F. Combes, & I. Shlosman (San Francisco: Astronomical Society of the Pacific), ASP Conference Series, 290, 101.
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### **Invited Talks (since August 2001)**

1. “Kinematics of the Ionized and Warm Molecular Gas in Nearby Active Galactic Nuclei”, Multiphase AGN Feeding and Feedback, Sesto, Italy (July 2018)
2. “Kinematics of the Narrow-Line Regions in Nearby AGN Based on Integral Field Unit Observations”, AGN Driven Winds, Haifa, Israel (May 2017)
3. “Feedback in the Narrow-Line Regions of Nearby AGN”, Black Hole Accretion and Feedback Conference, Shanghai, China, (June 2015)
4. “Quantifying the Impact of Outflows in the Inner Regions of AGN”, Conference on The Inner Regions of Quasars, Austin, TX (September 2014)
5. “The Importance of Mass Outflows for AGN Feedback”, International Conference on Black Holes, Jets, and Outflows”, Kathmandu, Nepal (October 2013)

6. “The Importance of Mass Outflows for AGN Feedback”, University of Florida Astronomy Department Colloquium (March 2013)
7. “Quantifying Feedback in Nearby AGN”, Energetic Astronomy Conference, Annapolis, MD (June 2012)
8. “AGN and their Connections to the Outflow Phenomenon”, ALMA/NAASC 2012 Workshop: Outflows, Winds and Jets, Charlottesville, VA (March 2012)
9. “Observations of Active Galactic Nuclei” (10 lectures), in the Beijing International Summer School on “The Physics and Evolution of AGN”, Beijing, China, (September 2011)
10. “FUV NALS, BALS, and their Kinematics”, High Energy View of Accreting Objects: AGN and X-ray Binaries conference, Agios Nikolaos, Crete, Greece (October 2010)
11. “Mass Outflows in Active Galactic Nuclei”, Department of Physics, Virginia Tech, Blacksburg, VA (September 2008)
12. “X-ray Grating Spectroscopy of Active Galactic Nuclei”, X-ray Grating Spectroscopy Workshop, Boston, MA (July 2007)
13. “UV and X-ray Warm Absorbers in Seyfert Galaxies”, The Central Engine of Active Galactic Nuclei conference, Xian, China (October 2006)
14. “Mass Outflows from AGN in Emission and Absorption”, Active Galactic Nuclei: from Atoms to Black Holes conference, Tel Aviv, Israel (February 2006)
15. “Seyfert Galaxy Outflows in Emission and Absorption”, AGN Winds in the Caribbean conference, St. John, Virgin Islands (November 2005)
16. “Mass Outflow from the Nuclei of Active Galaxies” Department of Physics and Astronomy, University of Oklahoma, Norman, OK (October 2005)
17. “The Connection Between Mass Outflow and the Narrow-Line Region in Seyfert Galaxies”, Center for Astrophysics and Space Astronomy, University of Colorado, Boulder, CO (May 2005)
18. “Mass Outflow from Active Galaxies”, Department of Physics and Astronomy, University of Alabama, Tuscaloosa, AL (April 2005)
19. “Mass Outflow from the Nuclei of Active Galaxies”, Department of Physics and Astronomy, University of Kentucky, Lexington, KY (February 2005)

20. "Mass Outflow from the Nucleus of the Seyfert 1 Galaxy NGC 3783", Department of Astronomy, The Ohio State University, Columbus, OH (April 2004)
21. "High Spatial Resolution Spectroscopy of Nearby AGN with HST", The Structure and Composition of Active Galactic Nuclei: Optical Interferometry and Adaptive Optics of NGC 1068, workshop at the Lorentz Center, Leiden, The Netherlands (January 2004)
22. "HST and FUSE Spectroscopy of Photoionized Gas in Active Galactic Nuclei", Frontiers in Laboratory Astrophysics workshop, Athens, GA (June 2003)
23. "Intrinsic UV Absorption and Reddening in Seyfert 1 Galaxies", Space Telescope Science Institute, Baltimore, MD (December 2002)
24. "Mass Outflow in the Seyfert 1 Galaxy NGC 4151" Department of Astronomy, University of Florida, Gainesville, FL (September 2001)

### **Contributed Presentations (since August 2001)**

1. "The Effects of Different Density Profiles on Spatially Resolved Outflow Energetics", Revalska, M., Crenshaw, D.M., Rafelski, M., Kraemer, S.B., Polack, G.E., Trindade Falcao, A., Fischer, T.C., Meena, B., Martinez, F., Schmitt, H.R., Collins, N.R., & Falcone, J., AGN Winds on the Cheapeake, Easton, MD, June 2023.
2. "The Origins and Driving Mechanisms of Narrow-Line Regions Outflows", Meena, B., Crenshaw, D.M., Schmitt, H., Revalska, M., Fischer, T.C., Chapman, Z., Kraemer, S., Robinson, J., Falcone, J., & Polack, G.E., AGN Winds on the Cheapeake, Easton, MD, June 2023.
3. "Let's Talk About Jets: Analyzing Extranuclear Radio Sources in NGC 1068 and Friends", Fischer, T.J., Johnson, M., Secrest, N., Smith, K.L., Sargent, A., Kraemer, S., Crenshaw, D.M., Schmitt, H., Revalska, M., Meena, B., Falcone, J., Polack, G.E., & Shea, M., AGN Winds on the Cheapeake, Easton, MD, June 2023.
4. "Gas Outflow Kinematics in NGC 3516", Ferree, N., Crenshaw, D.M., Falcone, J., Chapman, Z., Shea, M., Fischer, T., Polack, G., Revalska, M., & Meena, B., AGN Winds on the Cheapeake, Easton, MD, June 2023.
5. "A UFO Seen Edge-On: Resolving Ultrafast Outflow Emission on 200-pc Scales with Chandra in the Active Nucleus of Mrk 34", Maksym, W., Fabbiano, G., Elvis, M., Trindade Falcao, A., Kraemer, Steven; Fischer, T., Crenshaw, D., Storchi-Bergmann, T., American Astronomical Society, Seattle, WA, January 2023.

6. “Gas Outflow Kinematics in NGC 3516”, Ferree, N., Crenshaw, D. M., Falcone, J., Chapman, Z., Fischer, T., Shea, M., Meena, B., Polack, G., Revalska, M., American Astronomical Society, Seattle, WA, January 2023.
7. “Evidence for X-ray Wind/Cloud Interaction in NGC 1068”, Kraemer, S., Fischer, T., Revalska, M., Trindade Falcao, A., Crenshaw, D. M., Schmitt, H., Bottorff, M., Raymond, J., American Astronomical Society, Seattle, WA, January 2023.
8. “Disentangling Outflows and Rotation in the Star-Forming Seyfert 1 Galaxy NGC 3227”, Falcone, J., Crenshaw, D. M., Fischer, T., Meena, B., Revalska, M., Shea, M., Chapman, Z., Polack, G., Ferree, N., American Astronomical Society, Seattle, WA, January 2023.
9. “Narrow-Line Region Outflows in a Sample of Nearby Seyfert Galaxies”, Polack, G., Crenshaw, D.; Revalska, M., Falcone, J., Shea, M., Chapman, Z., Meena, B., Fischer, T., Ferree, N., American Astronomical Society, Seattle, WA, January 2023.
10. “Ionized Gas Flows in the Compact Galaxy Group Stephan’s Quintet and its Active Galaxy NGC 7319”, Shea, M. Crenshaw, D., Falcone, J., Chapman, Z., Polack, G., Ferree, N., Meena, B., Revalska, M., Fischer, T., American Astronomical Society, Seattle, WA, January 2023.
11. “NGC 4395: The Little AGN That Could”, Chapman, Z., Crenshaw, D., Falcone, J., Shea, M., Polack, G., Meena, B., Revalska, M., Fischer, T., Ferree, N., American Astronomical Society, Seattle, WA, January 2023.
12. “Determining the Launching Sites and Extents of AGN Outflows in Nearby Galaxies using Radiative Driving Models”, Meena, B. & Crenshaw, D.M., American Astronomical Society, Pasadena, CA, June 2022.
13. “An Analysis of AGN-Driven Outflows in the Seyfert 1 Galaxy NGC 3227”, Falcone, J., Crenshaw, D.M., Fischer, T.C., Meena, B., Revalska, M., Polack, G.E., Shea, M., & Chapman, Z., American Astronomical Society, Pasadena, CA, June 2022.
14. “AGN Outflows in the Narrow-Line Seyfert 1 Galaxy NGC 4051”, Meena, B., Crenshaw, D.M., Fischer, T.C., Schmitt, H.R., Revalska, M., & Polack, G.E. 2021, American Astronomical Society, Virtual, January 2021.
15. “Interactions of AGN Outflow and Star-Forming Regions in Nearby Seyfert Galaxies”, Polack, G.E., Crenshaw, D.M., Meena, B., & Revalska, M. 2021, American Astronomical Society, Virtual, January 2021.
16. “Feeding and Feedback on Nuclear and Galactic Scales in the Seyfert 2 Galaxy Mrk 3”, Crenshaw, D.M., Gnilka, C.L., Fischer, T.C., Revalska, M., Meena, B., Martinez, F., Polack, G.E., Machuca, C., Dashtamirova, D., Kraemer, S.B., & Schmitt, H.R., American Astronomical Society, Honolulu, HI, January 2020.

17. "Spatially Resolved Mass Outflow Rates for Six Nearby AGN Using Photoionization Modeling", Revalska, M., Meena, B., Martinez, F., Crenshaw, D.M., Kraemer, S.B., Collins, N.R. Fischer, T.C., Schmitt, H.R., Polack, G.E., & Rafelski, M., American Astronomical Society, Honolulu, HI, January 2020.
18. "Looking for X-ray Evidence of Termination Shocks in Markarian 34", Maksym, W., Elvis, M., Fischer, T., Revalska, M., Crenshaw, D., Kraemer, S.. Gnilka, C., Storchi-Bergmann, T., Gandhi, P., Wiita, P., & Fabbiano, G., American Astronomical Society, Honolulu, HI, January 2020.
19. "Measuring the Extents of AGN Outflows using Spatially Resolved Spectroscopy", Meena, B., Crenshaw, D.M., Fischer, T.C., Revalska, M., Polack, G.E., American Astronomical Society, Honolulu, HI, January 2020.
20. "Determining the Kinematics of Ionized and Molecular Gas in Nearby Active Galaxies with the Gemini Near Infrared Field Spectrometer (NIFS)", Crenshaw, D.M., Fischer, T., Gnilka, C.L.; Revalska, M., Martinez, F., Meena, B., Kraemer, S., & Schmitt, H.R., American Astronomical Society, Seattle, WA, January 2019.
21. "X-ray Emission from the NLR of NGC 4151: the Chandra/HETG view", Kraemer, S.B., Turner, T.J., & Crenshaw, D.M., American Astronomical Society, Seattle, WA, January 2019.
22. "Hubble Space Telescope Observations of Extended [O III] 5007 Emission in Nearby QSO2s, Physical Properties of the Outflows", Trindade Falcao, A., Kraemer, S., Fischer, T., Crenshaw, D.M., & Revalska, M., American Astronomical Society, Seattle, WA, January 2019.
23. "Probing the Narrow Line Region Kinematics of the Seyfert 2 Galaxy Mrk 78 using Apache Point Observatory (APO) and Hubble Space Telescope (HST) observations", Meena, B., Crenshaw, D.M., Revalska, M., Gnilka, C.L., Martinez, F., & Fischer, T., M., American Astronomical Society, Seattle, WA, January 2019.
24. "Kinematic Study of Outflowing Gas for the nearby Seyfert Galaxies NGC 1068 & NGC 4151 using Hubble Space Telescope and Apache Point Observatory Spectra", Martinez, F., Crenshaw, D.M., Revalksi, N., Gnilka, C.L., Dashtamirova, D., Fischer, T., & Meena, B., American Astronomical Society, Seattle, WA, January 2019.
25. "Feeding and Feedback in Nearby Active Galactic Nuclei based on Integral Field Unit Observations", Crenshaw, D.M., Are AGN Special?, Durham, England, August 2018.
26. "A Comparison of Techniques for Determining Mass Outflow Rates in the Type 2 Quasar Markarian 34", Revalska, M., Crenshaw, D.M., Fischer, T.C., Kraemer, S.B., Schmitt, H.R., Dashtamirova, D., & Gnilka, C.L., American Astronomical Society, National Harbor, MD, January 2018.
27. "Investigating Tidal Interactions Between the Seyfert 2 Galaxy Mrk 3 and a Nearby Companion", Gnikla, C.L., Crenshaw, D.M., Fischer, T.C., Revalska, M., &

Dashtamirova, D., American Astronomical Society, National Harbor, MD, January 2018.

28. "The Extended Narrow Line Region Kinematics of the Luminous QSO2 Markarian 34", Dashtamirova, D., Machuca, C., Revalska, M., Crenshaw, D.M., Gnilka, C.L., & Fischer, T.C., American Astronomical Society, National Harbor, MD, January 2018.
29. "BAT AGN Spectroscopic Survey. I. Spectral measurements, derived quantities, and AGN demographics", Koss, M., et. al., American Astronomical Society, National Harbor, MD, January 2018.
30. "Outflows, Inflows, and Rotation in the Narrow-Line Regions of Seyfert Galaxies", Crenshaw, D.M., AGN Winds on the Georgia Coast, Jekyll Island, GA, June 2017.
31. "The BAT AGN Spectroscopic Survey (BASS)", Koss, M., et al., American Astronomical Society, Grapevine, TX, January 2017.
32. "X-Ray Modeling of the Intrinsic Absorption in NGC 4151", Couto, J.D., et al., American Astronomical Society, Grapevine, TX, January 2017.
33. "Determining the Spatially Resolved Mass Outflow Rate in Markarian 573", Revalska, M., et al., American Astronomical Society, Grapevine, TX, January 2017.
34. "An Extended Look at the Narrow-Line Region of the Seyfert 2 Galaxy Mrk 573", Machuca, C., et al., American Astronomical Society, Grapevine, TX, January 2017.
35. "Disentangling the NLR Structure in Mrk 573 with Integral Field Spectroscopy", Fischer, T.C., et al., American Astronomical Society, Grapevine, TX, January 2017.
36. "A Hubble Space Telescope Survey of Intrinsic Absorption in Nearby AGN", Dashtamirova, D., et al., American Astronomical Society, Grapevine, TX, January 2017.
37. "Feeding and Feedback in Nearby AGN based on IFU Observations", Crenshaw, D.M., Fischer, Travis C., Kraemer, S.B., Schmitt, H.R., Pope, C.L., Machuca, C., & Revalska, M., American Astronomical Society, Kissimmee, FL, January 2016.
38. "Do QSO2s have Narrow Line Region Outflows? Implications for Quasar-mode Feedback. Imaging Results", Kraemer, S.B., Longo Micchi, L.F., Schmitt, H.R., Fischer, T.C., & Crenshaw, D.M., American Astronomical Society, Kissimmee, FL, January 2016.
39. "Do QSO2s have Narrow Line Region Outflows? Implications for quasar-mode feedback. Spectroscopic Results", Fischer, T.C., Kraemer, S.B., Crenshaw, D. M., Schmitt, H.R., American Astronomical Society, Kissimmee, FL, January 2016.
40. "New Chandra Observations of NGC 4151: Modelling the X-Ray Absorption", Denes Couto, J., Kraemer, S.B., Turner, T.J., & Crenshaw, D.M., American Astronomical Society, Kissimmee, FL, January 2016.
41. "Kinematic and Physical Constraints on the Outflows in NGC 3516", Dunn, J.P., Parvaresh, R., Crenshaw, D.M., Kraemer, S.B., & Gabel, J.R. American Astronomical Society, Kissimmee, FL, January 2016.

42. "Mass Outflow in the Narrow Line Region of Markarian 573", Revalska, M., Crenshaw, D.M., Fischer, T.C., Kraemer, S.B., & Schmitt, H.R., American Astronomical Society, Kissimmee, FL, January 2016.
43. "Modeling Host Disk Kinematics of Nearby Active Galactic Nuclei", Machuca, C., Crenshaw, D.M., & Fischer, T.C., American Astronomical Society, Kissimmee, FL, January 2016.
44. "The Effect of Special Reduction Procedures of IFU Observations from Gemini-NIFS on Dynamical Measurements of Nearby AGN", Pope, C.L., Crenshaw, D.M., & Fischer, T.C., American Astronomical Society, Kissimmee, FL, January 2016.
45. "Investigating a Correlation Between Mid-IR Color and Inclination in Active Galactic Nuclei", Crenshaw, D.M., Rose, M., Elvis, M., Glidden, A., & Fischer, T., IAU General Assembly, Meeting #29, Honolulu, HW, August 2015.
46. "Automated IFU Analysis: Narrow Line Region Outflows In Mrk 3", Fischer, T.C., Crenshaw, D.M., & Pope, C., IAU General Assembly, Meeting #29, Honolulu, HW, August 2015.
47. "Investigating a Correlation Between AGN Inclination and Mid-IR Color", Crenshaw, D. M., Fischer, T.C., Kraemer, S.B., & Schmitt, American Astronomical Society, Seattle, WA, January 2015.
48. "Determining the Narrow-Line Region Geometry of Mrk 3 with Gemini/NIFS", Pope, C.L., Fischer, T.C., & Crenshaw, D.M., American Astronomical Society, Seattle, WA, January 2015.
49. "An Extended Look at the Narrow-Line Region Kinematics of Markarian 573", Machuca, C., Fischer, T.C., & Crenshaw, D.M., American Astronomical Society, Seattle, WA, January 2015.
50. "Bayesian Model Selection in 'Big Data' Spectral Analysis", Fischer, T.C., Crenshaw, D.M., Baron, F., Kloppenborg, B.K., & Pope, C.L., American Astronomical Society, Seattle, WA, January 2015.
51. "Variability in the Intrinsic UV Absorption in Mrk 279 based on HST/COS Spectra", Schmachtenberger, B.R.; Gabel, J., Crenshaw, D.M., & Kraemer, S.B., American Astronomical Society, Seattle, WA, January 2015.
52. "AGN Winds and their Importance for Feedback", Crenshaw, D.M. 2014, Crenshaw, D.M., Science with the *Hubble Space Telescope* IV: Looking to the Future, Rome, Italy, March 2014.
53. "The Importance of Winds for AGN Feedback", Crenshaw, D.M., Kraemer, S.B., Schmitt, H.R., Fischer, T.C., & Gagne, J., American Astronomical Society, Washington, DC., January 2014.
54. "Deconvolving Contributions to the Narrow Emission-Line Spectra of Narrow-Line Seyfert 1s", Kraemer, S.B., Crenshaw, D.M., Schmitt, H.R., & Dietrich, M., American Astronomical Society, Washington, DC., January 2014.

55. Variability in the Intrinsic Absorption in the Seyfert 1 Galaxy NGC 378, Gabel, J.R., Crenshaw, D.M., Dunn, J.P., & Kraemer, S.B., American Astronomical Society, Washington, DC., January 2014.
56. "Check This Out: A Minor Merger in Mrk 509?", Fischer, T.C., Crenshaw, D.M., Kraemer, S.B., Schmitt, H.R., Storchi-Bergmann, T., & Riffel, R.A, American Astronomical Society, Washington, DC., January 2014.
57. "Determining Nearby AGN Inclinations via Gemini/NIFS IFU Spectroscopy", Fischer, Travis C., Crenshaw, D.M., Kraemer, S.B., Schmitt, H.R., Storchi-Bergmann, T., & Riffel, R. 2013, American Astronomical Society, Long Beach, CA, January 2013.
58. "Measuring Feedback from Mass Outflows of Ionized Gas in Nearby AGN", Crenshaw, D.M., Kraemer, S.B., Schmitt, H.R., Turner, J., Fischer, T.C. 2013, American Astronomical Society, Long Beach, CA, January 2013.
59. "The Structure and Energetics of AGN Winds", Crenshaw, D.M. 2012, American Astronomical Society, Austin, TX, January 2012.
60. "Black Hole Masses and Eddington Ratios in a Large Sample of Active Galactic Nuclei", Michel, A. & Crenshaw, D.M. 2012, American Astronomical Society, Austin, TX, January 2012.
61. "Measuring Feedback in Nearby AGN", Crenshaw, D.M. 2011, AGN Winds in Charleston conference, Charleston, SC, October 2011.
62. "Mass Outflows in Narrow-Line Seyfert 1 Galaxies", Crenshaw, D.M. 2011, Narrow-Line Seyfert 1 Galaxies and their place in the Universe" conference, Milan, Italy, April 2011.
63. "Determining AGN Feedback Parameters from Seyfert Galaxy Outflows", Crenshaw, D.M., Kraemer, S.B., Schmitt, H.R., & Fischer, T.C. 2011, American Astronomical Society, Seattle, WA, January 2011.
64. "Double-Peaked Emission Lines in the Seyfert Galaxy Markarian 78: Mass Outflows from a Single AGN", Fischer, T.C., Crenshaw, D.M., Kraemer, S.B., & Schmitt, H.R. 2011, American Astronomical Society, Seattle, WA, January 2011.
65. "Optical Spectra of the Teacup AGN", Gagne, J., Crenshaw, D.M., Keel, W.C., & Fischer, T.C. 2011, American Astronomical Society, Seattle, WA, January 2011.
66. "Multi-wavelength Probes of Obscuration Towards the Narrow Line Region in Seyfert Galaxies", Kraemer, S.B., Schmitt, H., Crenshaw, D.M., Melendez, M., Turner, J., Guainazzi, M., & Mushotzky, R. 2011, American Astronomical Society, Seattle, WA, January 2011.
67. "X-ray and Optical Observations of Naked Seyfert 2 Galaxies", Crenshaw, D.M., Trippe, M., Kraemer, S., and Turner, J. 2010, High Energy Astrophysics Division, Waikoloa, Hawaii, March 2010.

68. The Distribution of X-ray Column Densities in Seyfert 1.8 and 1.9 Galaxies”, Trippe, M.L., Crenshaw, D., Kraemer, S., & Turner, J. 2010, High Energy Astrophysics Division, Waikoloa, Hawaii, March 2010.
69. “Revealing the Innermost Regions of AGN Through Deep Chandra and Suzaku Observations of NGC 4051”, Reeves, J.T., Turner, J., Miller, L., Lobban, A., Braito, V., Kraemer, S., & Crenshaw, D. 2010, High Energy Astrophysics Division, Waikoloa, Hawaii, March 2010.
70. “Outflows and Fueling Flows in the Seyfert 1 Galaxy Mrk 3”, Crenshaw, D.M., Kraemer, S., Schmitt, H., Jaffe, Y., Deo, R., Collins, N., & Fischer, T., American Astronomical Society, Washington, DC, January 2010.
71. “Kinematic Modeling of Mrk 573: Biconical Outflow”, Fischer, T.C., Crenshaw, D.M., Kraemer, S.B., Schmitt, H.R., & Trippe, M.L., American Astronomical Society, Washington, DC, January 2010.
72. “Exploring the Inner Narrow-Line Regions of Seyfert Galaxies”, Kraemer, S.B., Crenshaw, D.M., Schmitt, H.R., Trippe, M.L., & Melendez, M., & Fischer, T.C., American Astronomical Society, Washington, DC, January 2010.
73. “The Relative Contributions of the Fe II Pseudo-Continuum in the Narrow-Lined Type 1 Seyferts Ark 564 and I Zw 1”, Eufrasio, R.T., Bruhweiler, F.C., Verner, E., Wills, B., and Crenshaw, M., American Astronomical Society, Washington, DC, January 2010.
74. “Velocity Offsets and Outflows in Seyfert Galaxies”. Crenshaw, D.M., Multi-Messenger Relativistic Astrophysics Conference, Georgia Tech, Atlanta, May 2009.
75. “Mass Outflows from AGN in Emission and Absorption”, Crenshaw, D.M. & Kraemer, S.B., American Astronomical Society, Austin, TX, 7 – 11 January 2008.
76. “Extreme Long-Term Variability in the Optical Spectrum of the Seyfert Galaxy NGC 2992”, Trippe, M.L. & Crenshaw, D.M., American Astronomical Society, Austin, TX, 7 – 11 January 2008.
77. “Radio Loudness Of Broad Line AGN In The SDSS And First Survey”, Rafter, S.E. & Crenshaw, D.M., American Astronomical Society, Austin, TX, 7 – 11 January 2008.
78. “Decomposition Of Seyfert Mid-IR Spectra: The Starburst And The Active Nucleus”, Deo, R.P., Crenshaw, D.M., & Kraemer, S.B., American Astronomical Society, Austin, TX, 7 – 11 January 2008.
79. “Probing The Properties Of The Obscuring Material Around the Nucleus Of NGC 4151”, Kraemer, S.B., Schmitt, H.R., & Crenshaw, D.M., American Astronomical Society, Austin, TX, 7 – 11 January 2008.
80. The Correlation Between [O IV]  $\lambda$ 25.89 $\mu$  and the Hard X-ray Luminosities for a Sample of Nearby Seyfert Galaxies, Melendez, M., Kraemer, S.B., Deo, R.P., Crenshaw, M., Schmitt, H.R., Mushotzky, R.F., Tueller, J., Markwardt, C.B., & Winter, L., American Astronomical Society, Austin, TX, 7 – 11 January 2008.

81. "FUSE Analysis of Intrinsic Absorption in NGC 3516", Dunn, J.P., Crenshaw, D.M., & Kraemer, S.B. 2006, American Astronomical Society, Calgary, Alberta, 4 – 8 June 2006.
82. "High-Resolution X-ray and UV Spectra of the Seyfert 1 galaxy NGC 4151. II. STIS and FUSE Observations of the Intrinsic UV Absorption", Crenshaw, D.M., Kraemer, S.B., & Gabel, J.R., American Astronomical Society, Washington, DC, 8 – 12 January 2006, poster.
83. "High-Resolution X-ray and UV Spectra of the Seyfert 1 galaxy NGC 4151. I. Physical Conditions in the X-ray Absorbers", Kraemer, S.B., Crenshaw, D.M., George, I.M., & Gabel, J.R., American Astronomical Society, Washington, DC, 8 – 12 January 2006, poster.
84. "Spitzer/IRS Observations of Seyfert 1.8 and 1.9 Galaxies", Deo, R.P., Crenshaw, D.M., & Kraemer, S.B., American Astronomical Society, Washington, DC, 8 – 12 January 2006, poster.
85. "A Photoionization Model of the Markarian 3 Narrow Line Region", Collins, N.R., Kraemer, S.B., & Crenshaw, D.M., American Astronomical Society, Washington, DC, 8 – 12 January 2006, poster
86. "Radial Outflows from the Narrow-Line Regions of Seyfert Galaxies: No Evidence for Jet Acceleration", Das, V., & Crenshaw, D.M., AGN Winds in the Caribbean, St. John, Virgin Islands, 28 November – 2 December 2005, poster.
87. "The Connection Between Outflowing UV Absorbers and the Inner Narrow-Line Region in Seyfert Galaxies", Crenshaw, D.M. & Kraemer, S.B., American Astronomical Society, Minnesota, 29 May – 2 June 2005, poster.
88. "Kinematic Modeling of the NLR of NGC 1068", Das, V., Crenshaw, D.M., & Kraemer, S.B., American Astronomical Society, Minnesota, 29 May – 2 June 2005, poster.
89. "Dust Morphology of Narrow-Line Seyfert 1 Galaxies", Deo, R.P., Crenshaw, D.M., & Kraemer, S.B., American Astronomical Society, Minnesota, 29 May – 2 June 2005, poster.
90. "Intrinsic Absorption in the Dwarf Seyfert NGC 4395", Crenshaw, D.M., Kraemer, S.B., & Gabel, J.R. 2004, American Astronomical Society, Atlanta, 4 - 8 January 2004, poster.
91. "Emission-Line Properties of Active Galactic Nuclei from a Post-COSTAR HST Spectral Atlas", Kurasczkiewicz, J., Green, P.J., Crenshaw, D.M., Dunn, J., Forster, K., Vestergaard, M., & Aldcroft, T.L. 2004, American Astronomical Society, Atlanta, 4 - 8 January 2004, poster.

92. "Ultraviolet Lightcurve Internet Database of Active Galactic Nuclei", Dunn, J., Crenshaw, D.M., Jackson, B. 2004, American Astronomical Society, Atlanta, 4 - 8 January 2004, poster.
93. "Mapping the Kinematics of the Narrow-Line Regions in NGC 4151 and NGC 1068", Das, V. & Crenshaw, D.M. 2004, American Astronomical Society, Atlanta, 4 - 8 January 2004, poster.
94. "Probing the Circumnuclear Geometry of Three Seyfert Galaxies", Deo, R.P., & Crenshaw, D.M. 2004, American Astronomical Society, Atlanta, 4 - 8 January 2004, poster.
95. "The EUV Continuum Shape and Strength of NLS1 Galaxies", Dietrich, M., Crenshaw, D.M., & Kraemer, S.B. 2004, American Astronomical Society, Atlanta, 4 - 8 January 2004, contributed poster.
96. "Optical and IR Variability Study of ESO141-G55 and IRAS09149-6206", Tomovic, T., Dietrich, M., & Crenshaw, D.M. 2004, American Astronomical Society, Atlanta, 4 - 8 January 2004, poster.
97. "Combined HST/STIS, FUSE, and Chandra Observations of the Seyfert 1 Galaxy NGC 4151", Kraemer, S.B., Crenshaw, D.M., Gabel, J.R., & George, I.M. 2004, American Astronomical Society, Atlanta, 4 - 8 January 2004, poster.
98. "The Connection Between Mass Outflow and the Narrow-Line Region in Seyfert Galaxies", Crenshaw, D.M., et al., The 2004 Ringburg Castle Workshop on AGN Physics, Germany, November 2004, talk.
99. "Mass Outflow from the Nucleus of the Seyfert 1 Galaxy NGC 3783", Crenshaw, D.M., et al., High Energy Astrophysics Division Meeting, New Orleans, 8 – 11 September 2004, talk.
100. "Mapping the Kinematics of the Narrow-Line Region in NGC 4151", Das, V.D. & Crenshaw, D.M., American Astronomical Society, Nashville, 26 – 29 June 2003, poster.
101. "Relative Orientations of Seyfert Mass Outflows and Associated Galactic Disks", Deo, R.P. & Crenshaw, D.M., American Astronomical Society, Nashville, 26 – 29 June 2003, poster.
102. "The Host Galaxies of Narrow-Line Seyfert 1 Galaxies: Evidence for Bar-Driven Fueling", Crenshaw, D.M. & Kraemer, S.B., American Astronomical Society, 26 – 29 June 2003, Nashville, talk.

103. “Intrinsic Absorption and Reddening in Seyfert 1 Galaxies”, Crenshaw, D.M., & Kraemer, S.B., American Astronomical Society, Washington, DC, 7 – 10 January 2002, poster.
104. “Variable Intrinsic UV Absorption in the Seyfert 1.5 Galaxy NGC 3516”, Kraemer, S.B., Crenshaw, D.M., George, I.M., Netzer, H., & Turner, T.J., American Astronomical Society, Washington, DC, 7 – 10 January 2002, poster.
105. “HST/STIS and FUSE Observations of the UV Intrinsic Absorption in NGC 3783”, Gabel, J.R., Crenshaw, D.M., & Kraemer, S.B., American Astronomical Society, Washington, DC, 7 – 10 January 2002, poster.
106. “Physical Conditions of the Narrow Line Region in Markarian 3”, Collins, N.R., Kraemer, S.B., Crenshaw, D.M., & Ruiz, J.R., American Astronomical Society, Washington, DC, 7 – 10 January 2002, poster.
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