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EDUCATION	<b>Ph.D.</b> , 2008, Cornell University, Astronomy and Space Sciences <b>M.S.</b> , 2006, Cornell University, Astronomy and Space Sciences <b>B.S.</b> , 2003, West Virginia University, Physics with Honors, summa cum laude, Phi Beta Kappa	
EMPLOYMENT HISTORY	<p>2023 - present     Director of Science Communications     <b>National Radio Astronomy Observatory</b></p> <ul style="list-style-type: none"> <li>• Responsible for science conference exhibits and organization newsletters</li> <li>• VLA Sky Survey Science Group</li> </ul> <p>2018 - 2023     Scientist     <b>National Radio Astronomy Observatory</b></p> <ul style="list-style-type: none"> <li>• NRAO exhibit/science communication at AAS, IAU, and SC meetings with Dr. Mark Adams</li> <li>• Student program science and technical lead</li> <li>• Pipeline calibration; VLA Sky Survey; Survey Science Group</li> <li>• Dissertation Review Lead for PASP; SOC for the ADASS astronomy conference; NRAO Scientific Performance and Review Committee</li> </ul> <p>2015 - 2018     Associate Scientist     <b>National Radio Astronomy Observatory</b></p> <ul style="list-style-type: none"> <li>• AAS Harlow Shapley Visiting Lectureship (<a href="#">Link and Bio</a>)</li> <li>• NRAO exhibit/science communication at AAS, IEEE, and URSI meetings with Dr. Mark Adams</li> <li>• VLA Sky Survey calibration and imaging, brought the VLA pipeline under a common CASA framework with ALMA. Added weblog functionality for ALMA flux catalog access, flag task refactoring, and calibration tasks.</li> <li>• Associate Guest Editor, PASP, with Dr. Jeff Mangum</li> <li>• Created the NRAO iOS app for NRAO EPO team. Generated 3D visuals and diagrams for EPO press releases.</li> </ul> <p>2011 - 2015     Assistant Scientist     <b>National Radio Astronomy Observatory</b></p> <ul style="list-style-type: none"> <li>• (1) Pipeline (2) Created a prototype spectral line web service of GBT data.</li> <li>• Created the first publicly available archive of Green Bank science data with Dana Balsler and Melinda Mello, available through the NRAO database archive under one unified interface.</li> <li>• Followup observations of Virgo galaxies with IRAM 30m.</li> </ul> <p>2008 - 2011     Jansky Postdoctoral Fellow     <b>National Radio Astronomy Observatory</b></p> <ul style="list-style-type: none"> <li>• Worked with collaborators on various EVLA/Arecibo HI observations of galaxies.</li> <li>• LOC and SOC for the 2009 <i>Assembly, Gas Content and Star Formation History</i> meeting.</li> <li>• Assisted with ALMA Observing Tool testing.</li> <li>• Science interests: tidal interactions, LSS, mass function evolution. Gas in nearby galaxies.</li> <li>• Attended 26 different science/computing conferences with participation, talks, and posters.</li> </ul> <p>2003 - 2008     Graduate Research     <b>Cornell University</b></p> <ul style="list-style-type: none"> <li>• <b>Dissertation</b>: <i>"Toward the Virgo Cluster: On the Study of Neutral Hydrogen in the Local Universe"</i> with Professors Riccardo Giovanelli and Martha P. Haynes</li> </ul> <p>2002     NSF REU     <b>National Radio Astronomy Observatory</b></p> <ul style="list-style-type: none"> <li>• The GBT OH Megamaser Survey with James Braatz, Jeremy Darling</li> </ul> <p>2001     NSF REU     <b>Florida International University</b></p> <ul style="list-style-type: none"> <li>• Optical Observations of the Gamma-Ray Blazar PKS 1622-297 with James Webb</li> </ul>	

HONORS,  
AWARDS,  
GRANTS, AND  
FELLOWSHIPS

**NRAO**

- NRAO Distinguished Performance Award. 2019
- NRAO Star Awards. *VLA*SS pipeline. iOS app creation with EPO. 2015, 2017
- CINE Golden Eagle Award for Visualization. *Beyond the Visible: The Story of the VLA*. 2014

**Cornell University**

- Cranson and Edna B. Shelley Graduate Research Award, to recognize outstanding accomplishments 2007
- Cornell Graduate Travel Grants 2004, 2005, 2007
- NASA Space Grant Graduate Fellowship 2003-2004

**West Virginia University**

- Barry Goldwater Undergraduate Scholarship 2002-2003
- West Virginia University Outstanding Senior Physics Student 2003
- West Virginia University Foundation Scholarship 1999-2003
- Eberly College of Arts and Sciences Scholarship 2001-2003
- Eberly College Research Enrichment Awards 2002, 2003
- President's List 1999-2003

PROFESSIONAL  
MEMBERSHIPS,  
SERVICE,  
COMMITTEES

- 2024 National Science Foundation Panel Reviews
- IAU (**Active Member**) and AAS (Full Member)
- 2021 NASA Science Mission Directorate Reviews. Panel member
- 2019-present Program organizing committee for the **ADASS** conference
- 2019-present NRAO Scientific Performance and Review Committee
- Guest Associate Editor, PASP Journal, 2016-2018, appointed by editor-in-chief Jeff Mangum
- Telescope Proposal referee (continuous 2014-2022), various non-NRAO telescopes, 30 proposals per cycle
- NRAO Computing Security Committee, scientific staff liaison (2014-present)
- Referee for the NASA Postdoctoral Fellowship program
- Referee for the Astrophysical Journal, ApJ Letters, ApJ Supplement, MNRAS, PASP, Astronomy and Computing, Earth Science Informatics, and Inter. Journal of Digital Earth, PASA
- LOC and SOC, ALMA/NRAO Assembly of Galaxies meeting, 2009
- Cornell Astronomy Computing Committee, 2006-2008
- Arecibo Legacy Fast ALFA Survey, *Oversight Committee and Project Approval*
- Aspen Summer School Organizing Committee, 2006
- Eberly College of Arts and Sciences, *Dean's Advisory Committee, 2001-2002*
- Phi Beta Kappa, Golden Key, Sigma Pi Sigma Physics, Phi Kappa Phi Honor Societies

STUDENT  
ADVISING

- Paolo Estrada (University of Belize), Student Program 2022
- M.Rodriguez (Univ. of Costa Rica), Isaak Nathan, Dom Morse (PVCC), Student program 2021
- Mauricio Rodriguez (Univ. of Costa Rica) and John Beasley (JMU), Student program 2020
- Heather Harbin (Texas Tech) and Alejandro Saravia (N. A. Uni. of Honduras), Student program 2019
- Dany Vohl, Swinburne University of Technology, Dissertation Committee, Ph.D. awarded 2018
- Jason Renwick (Univ. of West Indies) and Alex Fortenberry (UVI), Student program 2018
- Matias Garate, Pontificia Universidad Catolica De Chile, collaborator, MHD sim viz (2016-2017)

TECHNICAL  
EXPERTISE

**Observing Experience**

- JVLA (PI - absorption L-band - A-config)
- IRAM 30-m (PI - spectral line observations)
- EVLA (co-I spectral line observations of the Leo Ring)
- VLA (PI - 24 hours of single field long integration spectral line observations)
- VLA (co-I - 24 hours multi configuration spectral line observations)
- GBT (50 hours commissioning for single field OH observations)
- GBT (50 hours PI for single field HI observations)

- Arecibo (ALFA multibeam, 120 hours as lead observer)
- Arecibo (50 hours as co-PI for pointed HI observations)
- Arecibo (10 hours as co-PI for telescope commissioning and calibration)
- Kitt Peak 0.9m (5 nights co-PI optical imaging)
- Palomar (5 nights, 2 as lead observer, optical spectroscopy)
- Cornell Computing Center: 4000 hours on 128 node cluster

**Computing Experience:** UNIX (Linux, Solaris), Mac OS, MS Windows

- Revision control: git, svn                      Programming Languages: Python, C/C++, FORTRAN
- Graphics/Animation: Blender, GIMP, Photoshop      Web/Database: HTML, PHP, MySQL, SQLServer, Javascript
- Scientific Packages: IDL, Mathematica, MATLAB, OCTave, CASA, AIPS

COMMUNICATION,  
MEDIA, AND  
OUTREACH

**NRAO**, Charlottesville, VA

- Caribbean Futures of Science ([Link](#)) April 2024
- Neural Networks and VLASS ([Link](#)) Jan 2023
- Black Hole press release ([Link](#)) March 2021
- Photo publication and interview in Wired ([Link](#)) Aug 2018
- AAS Press Conference on 3D Visualization ([Webcast Link](#)) June 2017
- Video featured on astronomy.com ([Link](#)) August 2014
- WINA News Radio Interview on Astronomy March 2015
- Dominion Energy STEM Career Day Oct. 2014, 2015
- Wolfram Demo Project ([Link](#)) 2011
- US Science and Eng. Festival: *NRAO outreach exhibit* 2010, 2012, 2014
- Charlottesville Astro Festival: *Invited talk on computing and astronomy* 2009, 2011
- UVa Cavalier Daily Interview: *Accessing Astronomy at the NRAO* 2009
- 50 years of NRAO Students: NRAO Outreach ([Link](#)) 2009

**Cornell University**, Department of Astronomy, Ithaca, NY

- Four part radio series: *Science/Life in the Universe, Radio Free Asia* 2007
- Invited talks: *Kopernicus Science Center: The Radio Universe* and Union College 2005, 2006, 2008
- Observing coordinator, Cornell Alumni Adult University 2005-2007
- Teaching Assistant, Cornell Astronomy 2004-2005
- Expanding Your Horizons (junior high students) Summer 2004
- Cornell: Ask an Astronomer 2003-2004

**West Virginia University**, Physics Department, Teaching/Recitation Assistant

2000-2001

## REFEREED

- PUBLICATIONS 32. Jones, M. G., Janowiecki, S., Dey, S., Sand, D. J., Bennet, P., Crnojevic, D., Fielder, C. E., Karunakaran, A., **Kent, B. R.**, Mazziotti, N., Mutlu-Pakdil, B., Spekkens, K.  
[Dark No More: The Low-luminosity Stellar Counterpart of a Dark Cloud in the Virgo Cluster](#). 2024, ApJL, 966, L15
31. Hunter, T. R., Indebetouw, R., Brogan, C. L., Chang, C-S., Francke, H., Geers, V. C., Gomez, L., Hibbard, J. E., Humphreys, E. M., Kepley, A. A., Kunneriath, D., Lipnicky, A., Loomis, R. A., Mason, B. S., Masters, J. S., Maud, L. T., Muders, D., Sugimoto, K., Videla, L., Williams, S., Yoon, I., Berry, K., **Kent, B. R.**, Miura, R. E., Miyamoto, Y., Nakazato, T., Saito, T. [The ALMA Interferometric Pipeline Heuristics](#), 2023, PASP, 135, 1049
30. Pesce, D. W., Seth, A. C., Greene, J. E., Braatz, J. A., Condon, J. J., **Kent, B. R.**, Krajinovic, D. [A Restless Supermassive Black Hole in the Galaxy J0437+2456](#). 2021, ApJ, 909, 141
29. Lacy, M., Baum, S. A., Chandler, C. J.,...8 co-authors..., **Kent, B. R.**,...66 co-authors.  
[The Karl G. Jansky Very Large Array Sky Survey \(VLASS\). Science Case and Survey Design](#). 2020, PASP, 132, 1009
28. **Kent, B.R.** [Science and Computing with Raspberry Pi](#). 2018, IOP Press
27. Selina R.J., Murphy, E.J., McKinnon, M., Beasley, A., Butler, B., Carilli, C., Clark, B., Erickson, A., Grammer, W., Jackson, J., **Kent, B.R.**, Mason, B., Morgan, M., Ojeda, O., Shillue, W., Sturgis, S., Urbain, D. [The ngVLA Reference Design](#), 2018, ASP Conf. Series, ed. Eric Murphy
26. Haynes, M.P., Giovanelli, R., **Kent, B.R.**, Adams, E.A.K.,...(21 co-authors).  
[The ALFALFA Survey: Extragalactic HI Source Catalog](#). 2018, ApJ, 861, 1
25. **Kent, B.R.** [Spherical Panoramas for Astrophysical Data Visualization](#). 2017, PASP, 129, 975, 8004
24. **Kent, B.R.** [Techniques and Methods for Astrophysical Data Visualization](#). 2017, PASP, 129, 975, 8001
23. **Kent, B.R.** [3D Scientific Visualization with Blender](#). 2015, IOP Press
22. **Kent, B.R.** [Visualizing Astronomical Data with Blender](#). 2013, PASP, 125, 928
21. Haynes, M. P., Giovanelli, R.,...(7 co-authors)..., **Kent, B. R.**,...(14 co-authors).  
[The ALFALFA alpha.40 HI Source Catalog](#). 2011, AJ, 142, 170
20. Boselli, A., ...(31 co-authors)...,**Kent, B.R.**,...(20 co-authors).  
[The GALEX UV Virgo Cluster Survey \(GUViCS\). I: The UV luminosity function of the central 12 sq.deg](#). 2011, A&A, 528, A107
19. **Kent, B.R.** [Clouds in the Virgo Cluster Periphery: Gas-rich Optically Inert Galaxies](#). 2010, ApJ, 725, 2333
18. Cortese, L., Bendo, G.J., Isaak, K.G., Davies, J.I., & **Kent, B.R.**  
[Diffuse far-infrared and ultraviolet emission in the NGC 4435 system](#). 2010, MNRAS Letters, 403, 26L
17. Giovanelli, R., Haynes, M.P., **Kent, B.R.**, & Adams, E.  
[Are newly discovered HI high-velocity clouds minihalos in the local group?](#), 2010, ApJL, 708L, 22
16. **Kent, B.R.**, Spekkens, K., Giovanelli, R., Haynes, M.P., Momjian, E., Cortes, J.R., Hardy, E., West, A.  
[The Arecibo Legacy Fast ALFA Survey VII: A Neutral Hydrogen Cloud Complex in the Virgo Cluster](#). 2009,

15. Spoon, H. W. W., Armus, L., Marshall, J. A., Bernard-Salas, J., Farrah, D., Charmandaris, V., **Kent, B. R.**.  
[High-velocity neon line emission from the ULIRG IRAS F00183-7111: revealing the optically obscured base of a nuclear outflow](#), 2009, ApJ, 693, 1223
14. Stierwalt, S., Haynes, M. P., Giovanelli, R., **Kent, B. R.**, Martin, A. M., Saintonge, A., Karachentsev, I., Karachentseva, V.  
[The ALFALFA Survey VIII: The Leo Region HI Catalog, Group Membership and the HI Mass Function for the Leo I Group](#). 2009, AJ, 138, 338
13. Martin, A. M., Giovanelli, R., Haynes, M. P., Saintonge, A., Hoffman, G. L., **Kent, B. R.**, Stierwalt, S.  
[The ALFALFA Survey IX. HI Source Catalog of the Anti-Virgo Region at  \$\delta = +25^\circ\$](#)  2009, ApJS, 128, 214
12. Grossi, M., di Serego Alighieri, S., Giovanardi, C., Gavazzi, G., Giovanelli, R., Haynes, M. P., **Kent, B. R.**, Pellegrini, S., Stierwalt, S. and Trinchieri, G.  
[The HI content of early-type galaxies from the ALFALFA survey II. The case of low density environments](#). 2009, A&A, 497, 408
11. **Kent, B.R.**, Giovanelli, R., Haynes, M.P., Martin, A., Stierwalt, S., Saintonge, A., Brosch, N., Catinella, B., Koopmann, R.A., Momjian, E.  
[The Arecibo Legacy Fast ALFA Survey: VI. Second HI Source Catalog of the Virgo Cluster Region](#). 2008, AJ, 136,713
10. Koopmann, R.A., Giovanelli, R., Haynes, M.P., **Kent, B.R.**, Balonek, T.J.; Brosch, N., Higdon, J. L.; Salzer, J. J.; Spector, O. [A 500 kpc H I Extension of the Virgo Pair NGC 4532/DDO 137](#). 2008, ApJL, 682, 85L
9. Gavazzi, G., Giovanelli, R., Haynes, M. P., Fabello, S., Fumagalli, M., **Kent, B. R.**, Koopmann, R. A., Brosch, N., Hoffman, G. L., Salzer, J. J., Boselli, A.  
[HI content and other structural properties of galaxies in the Virgo cluster from the ALFALFA Survey](#). 2008, A&A, 482, 43
8. Saintonge, A., Giovanelli, R., Haynes, M.P., Brosch, N., Hoffman, G.L., **Kent, B.R.**, Martin, A.M., & Stierwalt, S. [The ALFALFA Survey: IV. HI Source Catalog of the Anti-Virgo Region at Decl. = +27°](#). 2008, AJ, 135, 588.
7. di Serego Alighieri, S., Gavazzi, G., Giovanardi, C., Giovanelli, R., Grossi, M., Haynes, M.P., **Kent, B.R.**, Koopmann, R.A., Pellegrini, S., Scodreggio, M. & Trinchieri, G.  
[The HI Content of Early-Type Galaxies from the ALFALFA survey: I. Catalogued HI sources in the Virgo Cluster](#). 2007, A&A, 474, 851.
6. **Kent, B.R.**, Giovanelli, R., Haynes, M.P., Saintonge, A., Stierwalt, S., Balonek, T., Brosch, N., Catinella, B., Koopmann, R.A., Momjian, E. & Spekkens, K.  
[Optically Unseen HI Detections toward the Virgo Cluster detected in the ALFALFA Survey](#). 2007, ApJL, 665, L15
5. Haynes, M.P., Giovanelli, R. & **Kent, B.R.**.  
[NGC 4254: An Act of Harassment Uncovered by the Arecibo Legacy Fast ALFA Survey](#). 2007, ApJL, 665, L19
4. Giovanelli, R., Haynes, M.P., **Kent, B.R.**, and 19 coauthors.  
[The ALFALFA Survey: III. HI Source Catalog of the Northern Virgo Cluster Region](#). 2007, AJ, 133, 2569
3. Giovanelli, R., Haynes, M.P., **Kent, B.R.**, and 16 coauthors.

[The ALFALFA Survey: II. Results of Precursor Observations.](#) 2005, AJ, 130, 2613

2. Giovanelli, R., Haynes, M.P., **Kent, B.R.**, and 37 coauthors.

[The ALFALFA Survey: I. Science Goals, Survey Design and Strategy.](#) 2005, AJ, 130, 2598

1. Springob, C.M, Haynes, M.P., Giovanelli, R., **Kent, B.R.**

[A Digital Archive of HI 21-cm Line Spectra of Optically Targeted Galaxies.](#) 2005, ApJS, 160, 149

CONFERENCE  
PROCEEDINGS,  
BOOK  
CHAPTERS,  
AND MEMOS

27. **Kent, B. R.** [Utilizing Open Shading Language and Blender for Data Cube Volume Visualization](#), 2024, ADASS XXXI

26. **Kent, B.R.** [Machine Learning Using the NVidia Jetson Nano](#), 2022, ADASS XXX

25. Lacy, M., Myers, S. T., Chandler, C., Kapinska, A. D., **Kent, B. R.**, Kimball, A. et al.  
[Pilot and Quick Look Data Release](#), 2022, VLASS Memo Series 13

24. Rodriguez, M., Beasley, J., **Kent, B.R.**, et al. [VLASS Quicklook Image Classifier Using PyTorch](#), 2022, ADASS XXX

23. Beasley, J., Rodriguez, M., **Kent, B.R.**, et al. [Accessing Radio Data](#), 2022, ADASS XXX

22. **Kent, B.R.** [3D Data Visualization in Radio Astronomy](#), 2021, URSI General Assembly, Rome, Italy, September

21. **Kent, B. R.**, Masters, J.S., Chandler, C. J. et al. [Pipeline Calibration and Imaging for the VLA](#), 2020, ADASS XXIX

20. Masters, J.S., **Kent, B. R.**, et al. [Pipeline Calibration and Imaging for ALMA](#), 2020, ADASS XXIX

19. **Kent, B. R.** [3D Data Visualization in Astrophysics](#), 2019, ADASS XXVIII

18. Emonts, B.,...19 co-authors..., **Kent, B. R.**,...17 co-authors,  
[The CASA Software for Radio Astronomy: Status Update](#), 2019, ADASS XXVIII

17. Selina R.J., Murphy, E.J., McKinnon, M., Beasley, A., Butler, B., Carilli, C., Clark, B., Erickson, A., Grammer, W., Jackson, J., **Kent, B.R.**, Mason, B., Morgan, M., Ojeda, O., Shillue, W., Sturgis, S., Urbain, D. [The Next-Generation Very Large Array: a technical overview](#), 2018, SPIE Astro Telescopes and Instrumentation, Austin, TX.

16. Geers, V.C., Williams, S., Muders D., Wyrowski, F., Kosugi, G., Nakazato, T., Sugimoto, K., Davis, L., Hales, C., **Kent, B.R.**, Kern, J. [The ALMA Science Pipeline](#), 2019, ADASS XXVI

15. Mangum, J. G., Darling, J., Menten, K.M., Henkel, C., Aalto, S., Spaans, M., van der Werf, P., Ginsburg, A., Formalont, E., Cotton, B., **Kent, B.R.** [Densitometry and Thermometry of Starburst Galaxies](#), Conditions and Impact of Star Formation, 2015, EAS Publications Series, 75, 61

14. Carilli, C. L., McKinnon, M., ... (15 co-authors)...**Kent, B. R.**, Clark, B., Butler, B.  
[ngVLA Memo 5. – Project Overview](#), 2015

13. **Kent, B.R.** [3D Visualization of Astronomical Data with Blender](#), 2015, ADASS XXIV, ASPC

12. Shinnaga, H...(14 co-authors)...**Kent, B.**, Momjian, E., Hunter, T.  
[The ALMA Pipeline - Current Status](#). 2015, ALMA Tokyo Meeting, Dec. 2014

11. Davis, L., Williams, S., Nakazato, T., Lightfoot, J., Muders, D., **Kent, B.R.**  
[The ALMA Pipeline Execution Framework.](#), 2015, ADASS XXIV, ASPC
10. **Kent, B.R.** [Visualizing Scientific Graphics for Astronomy and Astrophysics](#), 2013, Proceedings of ACM SIGGRAPH. No. 113
9. Balsler, D., **Kent, B.R.**, Hunt, G. [The Green Bank Telescope Archive](#), 2012, GBT Memo #278.
8. **Kent, B.R.** [The GRIDView Visualization Package](#), 2011, ADASS XX, ASPC, 442, 625
7. Martin, A. M., Koopmann, R., Higdon, S., Balonek, T. J., Haynes, M. P., Giovanelli, R., Adams, E. A. K., **Kent, B. R.**, Stierwalt, S.  
[The Undergraduate ALFALFA Team: A Model for Undergraduate Participation and Outreach](#), 2011, ASPC, 443, 273
6. Goodman, A. A., Udomprasert, P. S., **Kent, B.R.**, Sathiapal H., Smareglia, R.  
[Astronomy Visualization for Education and Outreach](#), 2011, ADASS XX, ASPC, 442, 659
5. Koopmann, R. A., Giovanelli, R., Haynes, M. P., **Kent, B.**, Brosch, N.  
[ALFALFA HI Content and Star Formation in Virgo Cluster Early-Type Dwarfs](#), 2010, ASPC, 423,101
4. **Kent, B.R.** [HI Clouds, Debris, and Galactic HI Toward the Virgo Region with the ALFALFA](#), 2008, AIPC, 1035, 225
3. **Kent, B.R.** [HI Clouds detected toward Virgo with the ALFALFA](#), 2008, IAU Symposium, 244, 93
2. **Kent, B.R.** [HI Observations of the Virgo Cluster](#), 2008, NRAO 50th Ann., ASPC, 395, 369
1. **Kent, B.R.**, Greene, G., Plante, R., Williams, R. Hanisch, R.J.  
Six papers in [Tools and Techniques for Astronomical Research](#), 2007, ASPC v.382

## ABSTRACTS

61. **Kent, B. R.**, [3D Astronomical Visualization with Open Shading Language and Blender](#). 2024, IAUGA, Poster 1704
60. **Kent, B. R.**, [Data Visualization with Open Shading Language and Blender](#). 2024, Jan AAS #243, #258.11
59. Larios, G., Argueta-Vijil, D., Bruton, A-M, Saravia, A., von Schill, L., **Kent, B. R.**  
[Student Astronomy in Guatemala](#). 2024, Jan AAS #243, #173.02
58. Argueta-Vijil, D., Larios, G., Fourie, A., Saravia, A., **Kent, B. R.**, von Schill, L.  
[Student Astronomy in Honduras](#), 2024, Jan AAS #243, #173.01
57. **Kent, B. R.**, [Neural Networks with the VLA Sky Survey](#), 2023, Jan AAS #241, #105.20
56. **Kent, B. R.**, [Data Cube Volume Visualization with Open Shading Language and Blender](#), 2022, June AAS #240, #302.22
55. **Kent, B. R.**, [Visualization of Discrete Cellular Automata Galaxy Models](#), 2021, June AAS #238, #132.07
54. **Kent, B. R.**, [Neural Networks with the Nvidia Jetson Nano](#), 2021, January AAS #237, #541.02
53. Beasley, J., Rodriguez Alas, M., **Kent, B. R.**, Fourie, A., von Schill, L.,  
[The NRAO Student program and Radio Astronomy Accessibility](#), 2021, January AAS #237, #547.09

52. Rodriguez Alas, M., Beasley, J., Fourie, A., **Kent, B.**, von Schill, L., [Virtual Radio Astronomy Hub for Costa Rica and the Central America Region](#), 2021, January AAS #237, #323.02
51. **Kent, B. R.**, Fourie, A., Harbin, H., Saravia, A., von Schill, L., [Python, Data Science, and Radio Astronomy](#), 2020, January AAS #235, #313.04
50. Saravia, A., Harbin, H., Fourie, A., **Kent, B. R.**, von Schill, L., [Astronomy Programs in Central America](#), 2020, January AAS #235, #104.04
49. Harbin, H., Saravia, A., Corsi, A., Fourie, A., **Kent, B. R.**, von Schill, L., [Astronomy Programs and the NRAO-TTU Hub](#), 2020, January AAS #235, # 104.01
48. **Kent, B. R.**, Haque, S., Renwick, J. D., Fortenberry, A., Rajkumar, B., Chitan, A., Fourie, A., von Schill, L., [Astronomical Data Mining with NRAO and UWI Trinidad](#), 2019, June AAS, #234, #103.07
47. **Kent, B. R.**, [Self-organizing Maps and Machine Learning with VLA Sky Survey Imaging](#), 2019, January AAS, #233, #446.01
46. Marvil, J., Chandler, C. J., **Kent, B. R.**, Myers, S. T., Schinzel, F. K., [Calibration of the VLA Sky Survey](#), 2019, January AAS, #233, #446.02
45. von Schill, L., Fourie, A., **Kent, B. R.**, [Astronomy Programs at NRAO](#), 2019, January AAS, #233, #262.11
44. **Kent, B. R.**, Haynes, M. P., Giovanelli, R., & the ALFALFA Team. [The ALFALFA Extragalactic Catalog and Data Processing Pipeline](#), 2018, June AAS, #232, #220.01
43. **Kent, B. R.**, Masters, J. S., Chandler, C. J., Davis, L. E., Kern, J. S., Ott, J., Schinzel, F. K., Medlin, D., Muders, D., Williams, S., Geers, V. C., Momjian, E., Butler, B. J., Nakazato, T., Sugimoto K. [The VLA Data Processing Pipeline](#), 2018, January AAS, #231, #342.14
42. **Kent, B. R.** and Garate, M., [Data Cube Visualization with Blender](#), 2017, June AAS #230, #216.06
41. **Kent, B. R.**, [3D Immersive Visualization with Astrophysical Data](#), 2017, Jan. AAS #229, #236.14
40. **Kent, B. R.**, [Spherical Panorama Viz of Astronomical Data](#), 2016, June AAS #228, #317.04.
39. **Kent, B. R.**, [3D Viz of Machine Learning Algorithms with Astronomical Data](#), 2016, Jan. AAS Meeting #227, #348.05.
38. **Kent, B. R.**, [Astronomy Data Viz with Blender](#), 2015, IAU General Assembly XXIX, P2.036.
37. **Kent, B. R.** & Wood, M. A., [Visualizing SPH Cataclysmic Variable Accretion Disk Simulations with Blender](#), 2015, Jan. AAS Meeting #225, #336.52.
36. Mills, E., Kern, J., Corby, J., **Kent, B. R.**, [Visualization and Analysis of Rich Spectral-Line Datasets](#), 2015, Tools for Astronomical Big Data, Tucson, AZ.
35. **Kent, B. R.**, [Visualizing Astronomical Data with Blender](#), 2014, Jan. AAS Meeting #223, #255.23.
34. **Kent, B. R.**, [GRIDView: Analysis and Cataloging of Atomic Spectra for Galaxies](#), 2012, NIST ICAMDATA Meeting, Gaithersburg, MD.
33. Remijan, A. J., Pulliam, R. L., Markwick, A., **Kent, B. R.**



- Splatalogue - Database for Molecular Spectroscopy, 2012, NIST ICAMDATA Meeting, Gaithersburg, MD.
32. **Kent, B. R.**, Chung, A., Wrobel, J.M., Ott, J., Morrison, G.E., Bekki, K., Park, H., [EVLA Observations of the Leo Ring](#), 2012, AAS Meeting #219, 2192441
  31. **Kent, B. R.** [Wavelet Analysis of AGN Jets](#). 2012, Jets, Winds, and Outflows, Charlottesville, VA.
  30. **Kent, B. R.** [Gas-rich Detections in Nearby Clusters](#). 2011, Spectroscopy Meeting, Victoria, BC.
  29. **Kent, B. R.** [Cellular Automata Algorithms for Galaxy Formation](#). 2011, Wolfram Research Summer School, Boston, MA.
  28. **Kent, B. R.** [Gas-rich Optically Inert Galaxies in the Virgo Cluster](#). 2011, AAS Meeting, 217, #149.22
  27. **Kent, B. R.** [The Virgo Cluster: HI Mass Function, Environment and Morphology](#). 2010, AAS Meeting, 215, #436.14
  26. Koopmann, R.A., Giovanelli, R., Haynes, M.P., **Kent, B.R.**, & Brosch, N. [ALFALFA HI Content and Star Formation of Early-type Dwarfs in The Virgo Cluster](#). 2010, AAS Meeting, 215, #451.03
  25. **Kent, B. R.** [Visualization tools for spectral line observations](#). 2009, CARMA Science Symposium
  24. **Kent, B. R.** [Galaxy Environment and HI in the Virgo Cluster](#). 2009, Galaxies09 meeting
  23. **Kent, B. R.** [Gas Evolution of Galaxies and the Environmental Dependence of the HI Mass Function](#) 2009, NRAO Postdoc Symposium
  22. Koopmann, R. A., Giovanelli, R., Haynes, M. P., **Kent, B. R.**, Brosch, N. [ALFALFA HI Content and Star Formation in Virgo Cluster Early-Type Dwarfs](#). 2009, Stellar Populations and Star Formation in Interacting Galaxies Meeting
  21. **Kent, B. R.** [HI and the Virgo Cluster](#). 2008, NRAO/EVLA Galaxies through Cosmic Time meeting
  20. **Kent, B. R.**, [Gas Content of Galaxies Near and Far](#). 2008, NRAO/ALMA meeting: Formation of Massive Stars in the Galaxy
  19. **Kent, B. R.**, [The Virgo Cluster: HI Characterization and Optically Inert Detections](#). 2007, BAAS, 39, 952
  18. **Kent, B. R.**, Giovanelli, R., Haynes, M. P., Saintonge, A., Stierwalt, S., Brosch, N., Catinella, B., Hoffman, G. L., Momjian, E., Rosenberg, J. L. [ALFALFA Observations of the Virgo cluster and its environs](#). 2005, BAAS, 37, 1457
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  15. Spekkens, K., Momjian, E., **Kent, B. R.**, Giovanelli, R., Haynes, M. P., Catinella, B., Stierwalt, S., Saintonge, A. [ALFALFA Discovery of an HI Cloud Complex in the Virgo Cluster: Aperture Synthesis Observations](#). 2005, 37, 1458
  14. Koopmann, R. A., Haynes, M. P., Alonso, J., Giovanelli, R., Hoffman, G. L., **Kent, B. R.**, Stierwalt,

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11. Ayala, J. A., Stilp, A., Patel, N., Altaf, A., Goldstein, J., Forsyth, C., Gillin, M., Mahmood, B., Read, J., Vucic, L., Mullan, B., Walsh, B., Wortel, S., Stierwalt, S., **Kent, B. R.**, and 10 coauthors. [An Undergraduate Research Project within the ALFALFA Collaboration](#). 2005, BAAS, 37, 1457
10. Haynes, M. P., Giovanelli, R., **Kent, B. R.**, Springob, C. M., Masters, K. L., Saintonge, A., Spekkens, K., Stierwalt, S. [A Digital Archive of Extragalactic HI Spectra and Access to the Arecibo Legacy Fast ALFA Survey](#). 2004, BAAS, 26, 1558
9. Giovanelli, R., Haynes, M. P., Spekkens, K., Springob, C. M., Masters, K. L., Saintonge, A., Catinella, B., **Kent, B.R.**, Maddalena, R. J., Magnani, L., Koopmann, R. A. [Blind Extragalactic HI Surveys with Arecibo and the GBT: I. Simulations and Strategies for Survey Design](#). 2003, BAAS, 35, 1287
8. Haynes, M. P., Giovanelli, R., Springob, C. M., Saintonge, A., Spekkens, K., Masters, K. L., Catinella, B., **Kent, B.R.**, Maddalena, R. J., Magnani, L., Koopmann, R. A. [Blind Extragalactic HI Surveys with Arecibo and the GBT: II. Strategies for Map Construction and Signal Detection](#). 2003, BAAS, 35, 1287
7. Webb, J. R., Howard, E. S., Azarnia, G., **Kent, B. R.** [The Historical calibrated Light Curve of Gamma-ray Bright Quasar PKS 1622-297](#). 2003, BAAS, 35, 1326
6. **Kent, B.R.**, Braatz, J., Darling, J. [The Green Bank Telescope OH Megamaser Survey](#). 2002, BAAS, 34, 1194
5. **Kent, B.R.**, Webb, J. [Optical Observations of the Blazar PKS 1622-297](#). 2001, BAAS, 33, 1453
4. **Kent, B.R.** *HI Observations with a Small Radio Telescope*. 2001, Eberly College of Arts & Sciences Student Research Symposium
3. **Kent, B.R.**, Soulsby, R. C., Boivin, R. F., Kline, J. L., Scime, E. E. [Heating Profile Calculations for a Helicon Plasma Source](#). 2000 APS Meeting, Division of Plasma Physics, HP1.071
2. Balkey, M.M., Scime, E.E., Boivin, R.F., Keiter, P.A., Kline, J.L., Spangler, R.S., **Kent, B.R.**, Soulsby, R.C. [Anomalous Ion Heating in a Helicon Plasma Source](#). 2000 APS Meeting, Division of Plasma Physics, MP1.006
1. Soulsby, R.C., **Kent, B.R.**, Balkey, M.M., Boivin, R.F., Kline, J.L., Scime, E.E. [Two-dimensional measurements of ion temperature in a helicon plasma source](#). 2000 APS Meeting, Division of Plasma Physics, VP1.002

#### INVITED TALKS

- Radio Astronomy and the NRAO*. (Local Participants), Charlottesville, VA. April 2024
- 3D Data Visualization*. Henry Royce Institute. ([Link](#)) June 2023
- VLA Sky Survey Conference*. Socorro, NM. ([Link](#)) Sept. 2022
- Flatiron Institute NYC - Data Visualization*. ([Link](#)) October 2021
- APS - Data Visualization*. Virtual ([Link](#)) March 2021
- APS - Data Visualization*. Denver, CO March 2020

	NCSA. Champaign-Urbana, IL ( <a href="#">Link</a> )	Feb. 2019
	ADASS 2018. College Park, MD. ( <a href="#">Link</a> )	Nov. 2018
	<i>Harlow Shapley Lecture</i> . Old Dominion University. ( <a href="#">Link and Bio</a> )	March 2016
	<i>Astronomy Visualization</i> . Old Dominion University.	March 2015
	<i>Visualization in the Sciences</i> . Old Dominion University	April 2014
	<i>Galaxies in the Nearby Universe</i> . Univ. of Michigan colloquium	March 2012
	<i>Cellular Automata and Galaxies</i> . Wolfram Research Summer School	July 2011
	<i>Visualization in Radio Astronomy</i> . Visualize 2010 meeting	May 2010
	<i>HI and the Virgo Cluster</i> . Univ. of Kentucky colloquium	Feb. 2010
	<i>Databases for Large Surveys</i> . Arecibo Observatory	Dec. 2009
CONTRIBUTED TALKS	<i>The NRAO and Radio Astronomy</i> . AAS EPO talk, New Orleans, LA	Jan 2024
	<i>The NRAO and Radio Astronomy</i> . AAS EPO talk, Denver and St. Louis	2018, 2019
	<i>Machine Learning Visualization</i> . AstroStat Special Session	Jan 2016
	<i>Astronomy and Blender</i> . SIGGRAPH BoF session	July 2013
	<i>The NRAO and Radio Astronomy</i> . AAS EPO talk, Indianapolis and Boston	2013, 2014
	<i>Radio Astronomy</i> . Piedmont Virginia Comm. College	Oct. 2013
	<i>C.A., Galaxies, and GPUs</i> . Software Development Workshop	Oct. 2011
	<i>Clouds Toward Virgo</i> . NRAO Postdoc Symposium	April 2011
	<i>Environment and Virgo</i> . ALMA conference talk, NRAO-CV	Sept. 2009
	<i>Environmental Dependence of the HIMF</i> . Socorro, NM	April 2009
	<i>Online Science/DB Tools</i> . NRAO Lunch Talk, NRAO-CV	April 2009
	<i>HI and the Virgo Cluster</i> . EVLA meeting, Socorro, NM	Dec. 2008
	<i>Gas-rich Detections in Virgo</i> . NRAO Lunch Talk, NRAO-CV	Sept. 2008
	<i>Astronomical Data Mining</i> . Public Lecture, Ithaca, NY	October 2007
	<i>HI Clouds in Virgo</i> . IAU Symposium 244, Cardiff, UK	June 2007
	<i>Virgo in HI</i> . Cornell Lunch Talk Series, Ithaca, NY	Feb. 2007
	<i>Databases for Imaging and Catalogs</i> . Summer School, Aspen, CO	Sept. 2006
	<i>Combining Web Services</i> . Summer School, Aspen, CO	Sept. 2006
	<i>Building Client Applications</i> . Summer School, Aspen, CO	Sept. 2006
	<i>Combining Web Services</i> . Summer School, Aspen, CO	Sept. 2006
	<i>Cone Search: The Data Access Layer</i> . Summer School, Aspen, CO	Sept. 2006
	<i>Metadata Descriptions</i> . Summer School, Aspen, CO	Sept. 2006
	<i>HI, Galaxies, and Virgo</i> . Cornell Summer Talk Series, Ithaca, NY	July 2006
	<i>HI Observations of Virgo</i> . ALFALFA Meeting, Ithaca, NY	June 2006
	<i>HI Clouds in Virgo</i> . NRAO Science Talk, Green Bank, WV	June 2006
	<i>Large Radio Sky Surveys</i> . Cornell Summer Talk Series, Ithaca, NY	July 2005
	<i>Followup Databases for Astronomy</i> . ALFALFA Meeting, Ithaca, NY	June 2005
	<i>Large Databases for Astronomy</i> . Arecibo Observatory	April 2004