Vishal Pramod Kasliwal

Deptartment of Physics & Astronomy
University of Pennsylvania
209 S. 33rd St.
Philadelphia, PA 19104-6396
Nationality: Indian

Phone: 267.206.9287
Email: vishal.kasliwal@gmail.com
Alt: vish@sas.upenn.edu

EDUCATION

Drexel University *September 2015*
Ph.D. in Physics
Thesis: *Probing AGN Accretion Physics through AGN Variability: Insights from Kepler*
Advisors: Dr. Michael S. Vogeley & Dr. Gordon T. Richards

Virginia Commonwealth University *May 2007*
M.S. in Physics & Applied Physics
Thesis: *CAFM Studies of Epitaxial Lateral Overgrowth GaN Films*
Advisor: Dr. Alison A. Baski

University of Richmond *May 2005*
B.A. in Mathematics & Physics
Thesis: *The Bispectrum as a Quantifier of non-Gaussianity in the Cosmic Microwave Background*
Advisor: Dr. Emory F. Bunn

EMPLOYMENT

- Postdoctoral Fellow in LSST Data Management & Galaxy Surveys (*Sept. 2015 - present*)

  Univ. of Pennsylvania, Dept. of Physics & Astronomy
  Princeton Univ., Dept. of Astrophysical Sciences
  Supervisors: Dr. Robert Lupton, Dr. Bhuvnesh Jain, & Dr. Mike Jarvis

- Graduate Research Assistant (*April 2014 - Sept. 2015*)

  Drexel Univ., Dept. of Physics
  Advisors: Dr. Michael S. Vogeley & Dr. Gordon T. Richards

- Graduate Teaching Assistant (*Sept. 2008 - March 2014*)

  Drexel Univ., Dept. of Physics
  Supervisors: Dr. Michel Vallieres
  Courses Taught: *Quantum Mechanics I, II, & III*
  Fundamentals of Physics I & II
  Introductory Physics I

- Adjunct Instructor (*June 2007 - June 2008*)

  Virginia Commonwealth Univ., Dept. of Physics
  Supervisor: Dr. Alison A. Baski
  Courses Taught: *Elementary Astronomy*
  General Physics I & II
  University Physics I & II
  Guided Inquiry for University Physics I & II

- Graduate Teaching Assistant (*Aug. 2005 - May 2007*)

  Virginia Commonwealth Univ., Dept. of Physics
  Supervisor: Dr. Alison A. Baski
  Courses Taught: *Elementary Astronomy*
  General Physics I & II
  University Physics I & II

- Graduate Research Assistant (*Summer 2006*)

  Virginia Commonwealth Univ., Dept. of Physics
  Advisor: Dr. Alison A. Baski

- Research Assistant (*May 2003 - May 2005*)

  Univ. of Richmond, Dept. of Physics
  Advisor: Dr. Emory F. Bunn

- Computing Lab Assistant (*Jan. 2002 - May 2005*)

  Univ. of Richmond, Information Services
  Supervisor: Vicki F. Brady

PUBLICATIONS

- "Extracting Information from AGN Variability", 2015
- "Do the Kepler AGN light curves need reprocessing?", MNRAS, 453, 2075, 2015
- "Are the variability properties of the Kepler AGN light curves consistent with a damped random walk?", MNRAS, 451, 4328, 2015
- "Thirty Meter Telescope Detailed Science Case: 2015", http://arxiv.org/abs/1505.01195, 2015
- "AFM and CAFM studies of ELO GaN films", Proc. SPIE 6473, 647308, 2007
- "Local electronic and optical behaviors of a-plane GaN grown via epitaxial lateral overgrowrth", Appl. Phys. Lett., 90, 011913, 2007

CONFERENCE & MEETING PARTICIPATION

- Presented *AGN Variability on Short Timescales: What does Kepler tell us about AGN Variability?* at the 2015 TMT Science Form 'Maximizing Transformative Science with TMT', June 2015, Washington, DC.
- Presented *What can Kepler tell us about AGN variability?* at the 225th Meeting of the American Astronomical Society, January 2015, Seattle, WA.
- Presented *Do Kepler AGN Light Curves Exhibit a Damped Random Walk?* at the 224th Meeting of the American Astronomical Society, June 2014, Boston, MA.
- Participated in the SciCoder Workshop, June 2010, New York, NY
- Attended the 215th Meeting of the American Astronomical Society, Jan. 2010, Washington, DC.
- Participated in the NSF-PIRE Summer School: Lensing of the CMB and High-z Galaxies, July. 2009, Philadelphia, PA.
- Presented *The Bispectrum of Galactic Dust: Implications for Microwave Background non-Gaussianity* at the 204th Meeting of the American Astronomical Society, May 2004, Denver, CO.

COMPUTING SKILLS

- Proficient in using C++, Python, & IDL for
  1. Scientific computing, data visualization, & numerical optimization.
  2. Parallel computing with OpenMP, Intel Cilk Plus, and the Python Multiprocessing module.
  3. Programming Intel Xeon Phi accelerator cards using Intel LEO extensions & OpenMp 4.0 in C++.
  4. Hardware random number generation using Intel Bull Mountain technology.
- 12+ years of experience with Linux, LaTeX, Mathematica, and MS Windows.
- 7 years of experience using Mac OS X for programming and development.
- Experience with bash, SQL, R, Intel CompilerXE toolchain, gcc toolchain, MATLAB, LONCAPA, Photoshop and Office Suites including MS Office, OpenOffice & LibreOffice.

ACADEMIC HONORS

- Jackson J. Taylor Best Senior Seminar in Physics Award, University of Richmond, 2005.
- Marsh White Award for the Outstanding Undergraduate Paper at the Society of Physics Students Undergraduate Research Session, Southeastern Section of the American Physical Society, 2003.
- National level participant in the Mathematics Training and Talent Search Programme (I.I.T., Mumbai), 2002.
- National level participant in the 2nd Indian Astronomy Olympiad, I.S.R.O., 2000.

SERVICE AND OUTREACH

- Started the *The Sky in the City* astronomy night program at the Dornsife Center (Drexel University). Responsiblities include running the program for the Drexel Physics Department and acquisition of telescopes to support the event.
  May 2015 - *present*

- Volunteer at the Drexel University Lynch Observatory for telescope open houses. Responsibilities include setting up, operating, and storage of the department's telescopes.
  Sept. 2008 - *present*

- Organized and co-taught the "Fun Physics" lectures at Drexel University Department of Physics. Topics included General Relativity, Advanced Mathematical Physics, & Spinor Physics.
  Fall 2008 - Fall 2009

MEMBERSHIPS AND SOCIETIES

- ΣΠΣ Drexel University, Philadelphia, PA.
- ΣΠΣ Virginia Commonwealth University, Richmond, VA.
- American Astronomical Society, Junior Member

REFERENCES

- Dr. Michael S. Vogeley
  Director of Graduate Studies; Professor

  Dept. of Physics
  Drexel Univ.
  3141 Chestnut Street
  Philadelphia, PA 19104
  Phone: (215)895-2710
  Email: vogeley@drexel.edu

- Dr. Gordon T. Richards
  Associate Professor

  Dept. of Physics
  Drexel Univ.
  3141 Chestnut Street
  Philadelphia, PA 19104
  Phone: (215)895-2713
  Email: gtr@physics.drexel.edu

- Dr. Stephen L.W. McMillan
  Interim Department Head; Professor

  Dept. of Physics
  Drexel Univ.
  3141 Chestnut Street
  Philadelphia, PA 19104
  Phone: (215)895-2709
  Email: steve@physics.drexel.edu

- Dr. Robert Gilmore
  Professor

  Dept. of Physics
  Drexel Univ.
  3141 Chestnut Street
  Philadelphia, PA 19104
  Phone: (215)895-2779
  Email: robert.gilmore@drexel.edu