

Vishal Kasliwal
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Education

- 2008 Graduate student, Department of Physics, Drexel University
Advisor: Dr. Michael S. Vogeley
- 2007 M.S. in Physics and Applied Physics, Virginia Commonwealth University
Thesis: “CAFM Studies of Epitaxial Lateral Overgrowth GaN Films”
Advisor: Dr. Alison Baski
- 2005 B.S. in Physics and Mathematics, University of Richmond
Advisor: Dr. Emory F. Bunn

Research Experience

- i. *Advisor:* Dr. Alison Baski
Department of Physics
Virginia Commonwealth University
Duration: August 2005 – May 2007
Position: Graduate Student
Description: The techniques of Atomic Force Microscopy (AFM) and Conductive-Atomic Force Microscopy were used to characterize and study Epitaxial Lateral Overgrowth (ELO) Gallium Nitride thin-films grown via Metal-Organic Chemical Vapor Deposition (MOCVD).
- ii. *Advisor:* Dr. Emory Bunn
Department of Physics
University of Richmond
Duration: May 2003 – December 2004
Position: Student Research Assistant
Description: The utility of algorithms such as the bispectrum as quantifiers of non-Gaussianity and dust contamination in the Cosmic Microwave Background was evaluated.

Work Experience

- i. *Employer:* Department of Physics
Drexel University
Duration: September 2007 – Present
Position: Graduate Teaching Assistant
Duties
 - Teaching laboratory courses in Physics and Astronomy. Courses taught: PHYZ 152
- ii. *Employer:* Department of Physics
Virginia Commonwealth University
Duration: June 2007 – June 2008
Position: Adjunct Instructor
Duties
 - Teaching laboratory courses in Physics and Astronomy. Courses taught: PHYZ 103, 201, 202, 207, 208, 351.
 - Designing and implementing new laboratory experiments.
 - Updating laboratory manuals used at the Physics Department.

- Programming LONCAPA homework assignments.
- iii. *Employer:* Department of Physics
Virginia Commonwealth University
Duration: August 2005 – May 2007
Position: Graduate Teaching Assistant
Duties
- Teaching laboratory courses in Physics and Astronomy. Courses taught: PHYZ 103, 201, 202, 207, 208.
 - Grading homework assignments.
- iv. *Employer:* Dr. Alison Baski
Virginia Commonwealth University
Duration: Summer 2006
Position: Graduate Research Assistant
Duties
- Research in Surface Physics, using an AFM to study GaN thin-films. This work was related to my research for my M.S degree.
- v. *Employer:* Information Services
University of Richmond
Duration: January 2002 – May 2005
Position: Student Lab Assistant
Duties
- Supervision of the university computing facilities during working hours.
 - Maintenance of computer equipment and software at the university computing labs.
- vi. *Employer:* Dr. Emory Bunn
University of Richmond
Duration: Summer 2003 - Fall 2004
Position: Student Research Assistant
Duties
- Cosmology research. I wrote IDL code designed to test the utility of various algorithms such as the bispectrum as quantifiers of non-Gaussianity and dust contamination in the Cosmic Microwave Background.

Publications

- i. “CAFM Studies of Epitaxial Lateral Overgrowth GaN Films,” V. Kasliwal, M.S. Thesis, *Virginia Commonwealth University Libraries* (May 2007)
- ii. “AFM and CAFM Studies of ELO GaN films,” V. Kasliwal, J.C. Moore, X. Ni, H. Morkoç, A.A. Baski, *Gallium Nitride Materials and Devices II, Proc. Of SPIE* **6473**, 647308 (2007)
- iii. “Local electronic and optical behaviors of a-plane GaN grown via epitaxial lateral overgrowth,” J.C. Moore, V. Kasliwal, X. Ni, Ü. Özgür, H. Morkoç, A.A. Baski, *Appl. Phys. Lett.* **90**, 011913 (2007)

Awards, Presentations and Honors

- i. April, 2007, Member of the Virginia Commonwealth University chapter of Sigma Pi Sigma, The National Physics Honor Society (Virginia Commonwealth University)

- ii. May 2005, Jackson J. Taylor Best Senior Seminar in Physics Award (University of Richmond)
- iii. June 2004, Poster Presentation at the 2004 American Astronomical Society Meeting in Denver, CO (A.A.S.)
- iv. November 2003, Marsh White Award for the Outstanding Undergraduate Paper at the Society of Physics Students Undergraduate Research Session (Southeastern Section of the American Physical Society)
- v. June 2002, National level participant in the Mathematics Training and Talent Search Programme (I.I.T., Mumbai)
- vi. May 2000, National level participant in the 2nd Indian Astronomy Olympiad (A.S.I., N.C.S.M., I.S.R.O.)

Skills

- i. Experience working with I.D.L., Linux, Pearl Scripts, Mathematica, LONCAPA, Java, R and B.A.S.I.C. as well as familiarity with common Windows and open source applications.
- ii. Experience and familiarity with astronomy and photography equipment.
- iii. Experience with Atomic Force Microscopy and variants.