

-
- Congratulations to Nick Smith, PhD,
Dec. 2024
 - Moving to the Laboratory of Physical
Science
(National Research Council Postdoctoral
Fellow)
-





Feb. 27th, 2022

Congratulation to Rathsara for moving to Intel, Portland after her PhD

Rathsara (left), PhD 2021, Giti, Kiara (Right) BS 2021



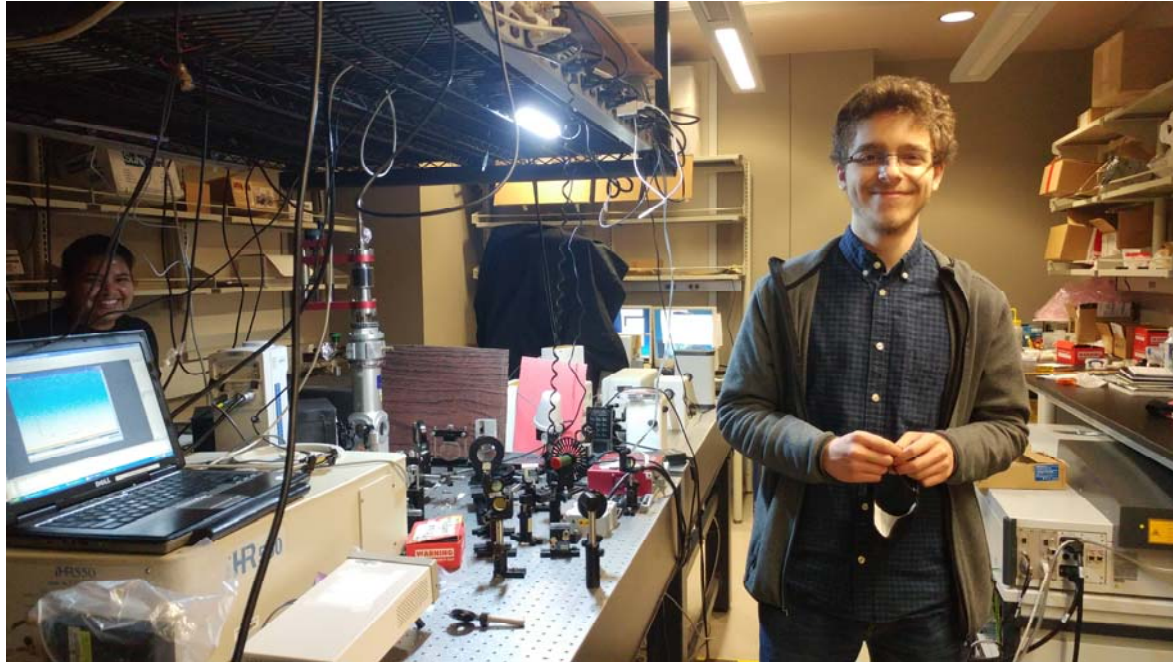
Undergraduates, class of 2021, Haydee, Lia, Giti, Izel, Julie



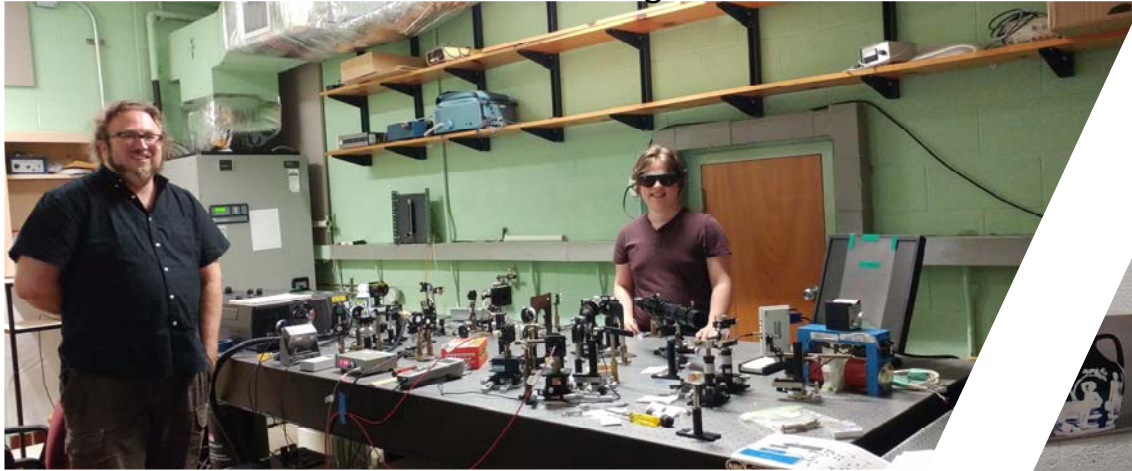
Graduate Class of 2021, Riya, Rebekah, Giti, Rathsara



Rathsara and Yannick 2021



Brenden Magill and Nick Smith

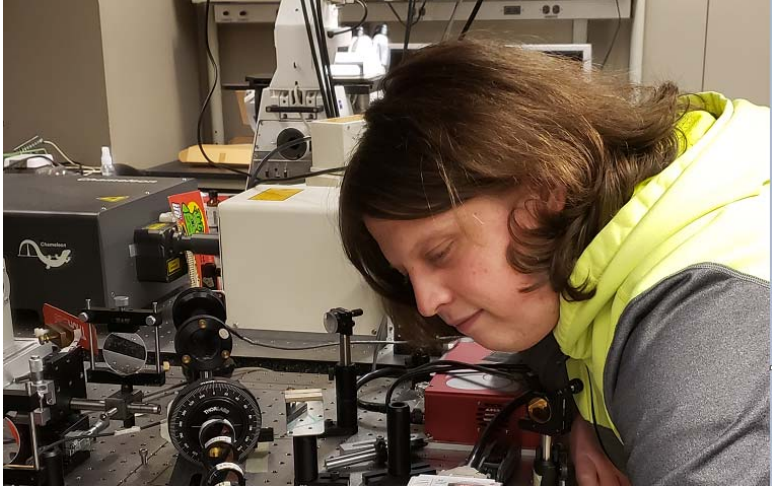


Kiara McMillan and Gabi Gagliano



Nick, Rathsara Herath, Gabi, and Ada Morall

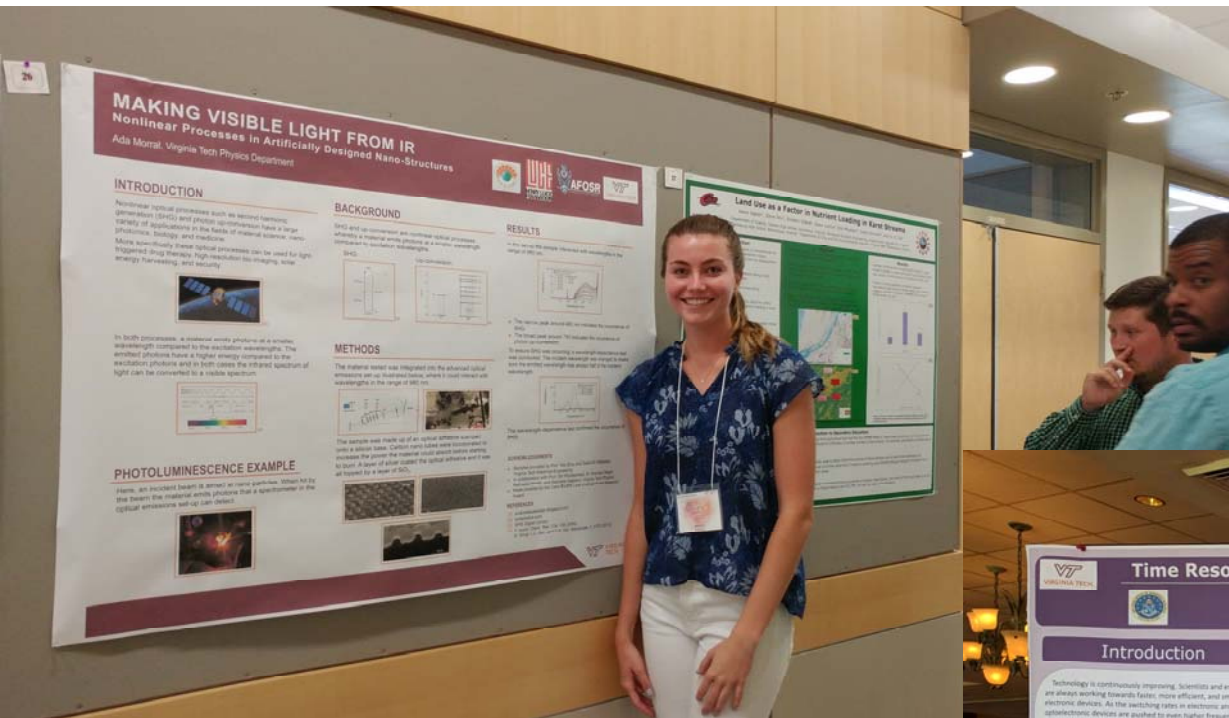




Nick Smith, Current Graduate Student



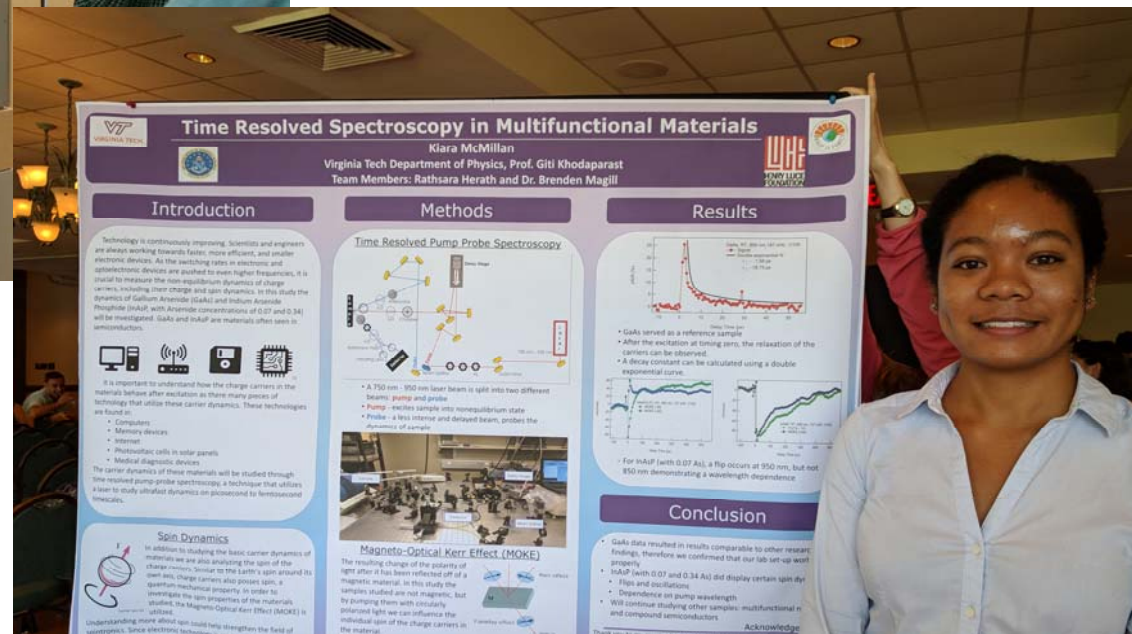
Rathsara Herath, PhD 2021,
Post Doc at Virginia Tech



Ada Morral (2019)

**Clare Boothe Luce (CBL)
Undergraduate Research Awards
Recipients in my group**

Kiara McMillan (2018)



Thanks to MAOP and Clare Boothe Luce at Virginia Tech
<https://www.maop.vt.edu>
https://www.maop.vt.edu/Undergraduate_programs/Luce_Scholars1.html



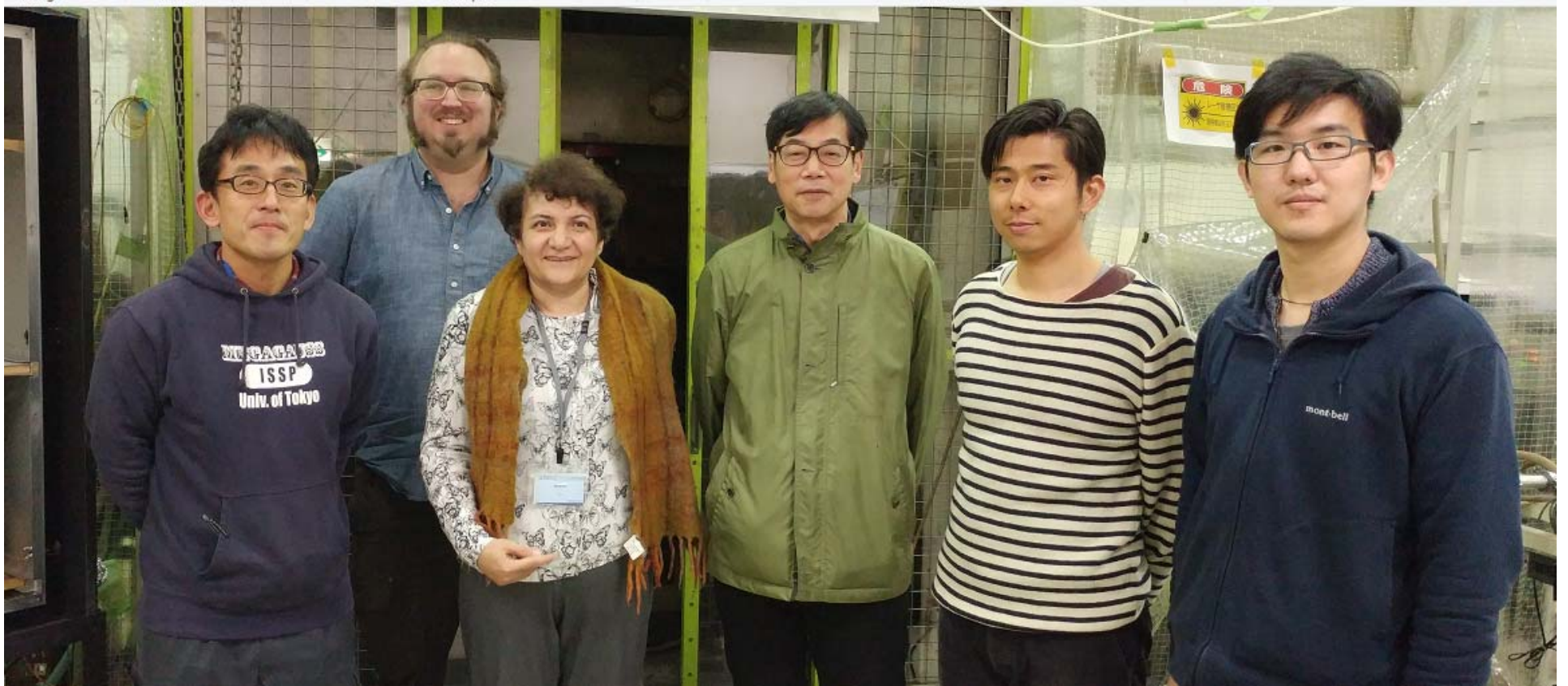
Joseph Spencer, currently at Naval Research Laboratory

Rathsara Herath in an award ceremony



Moira Miller
Currently Graduate Student
Colorado School of Mine





Brenden and Giti visiting Prof. Matsuda in Megagauss labs, Kashiwa in Japan



ICPS in France, Pictures with Zawadzki and Bastard



Rathsara Herath

Megan Alexis Cronin,
Supported by MAOP,
summer 2015





Megan Alexis Cronin,
Supported by MAOP,
summer 2015



Michael Meeker, PhD
Currently at Graduate Center in NYC

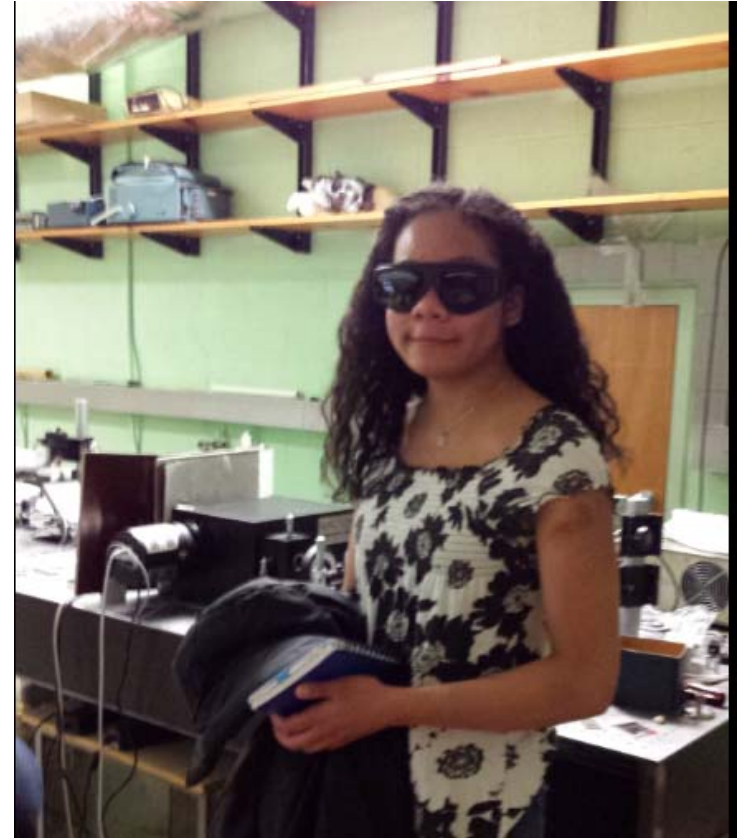
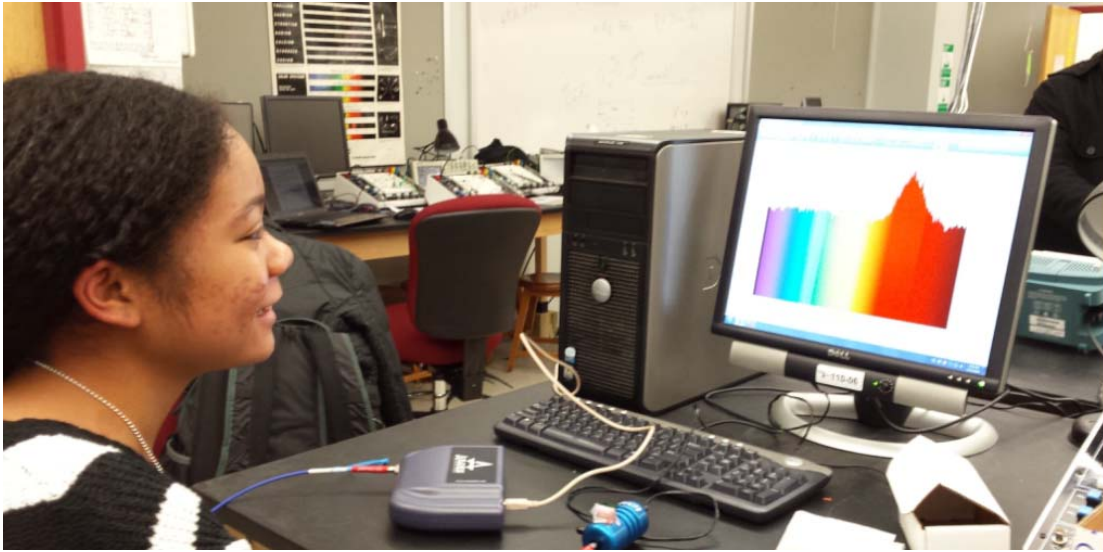
Kevin Tranhuu (Nano-science program)
Michael Meeker





Jameel and Kiara MacMilan





Kiara McMillan



Travis Merritt



Kai Chen



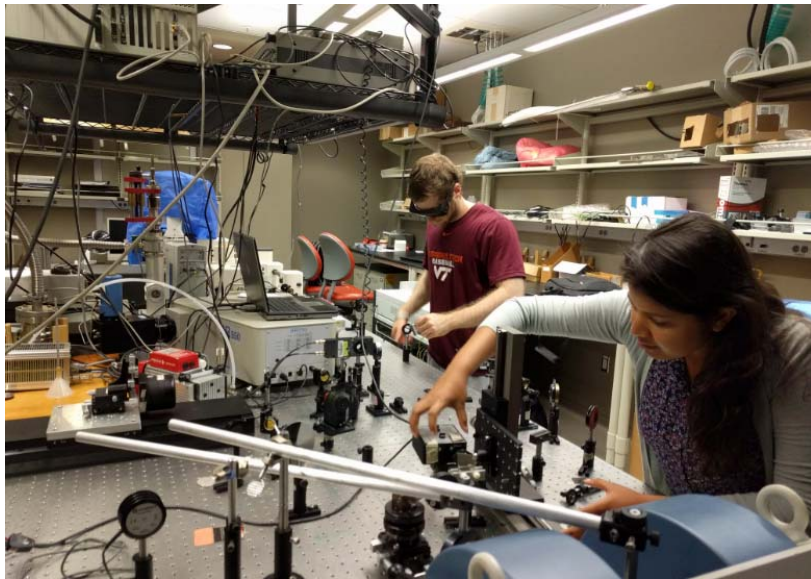
Ladies of Robeson
Prof. Judy Wu from U. Kansas



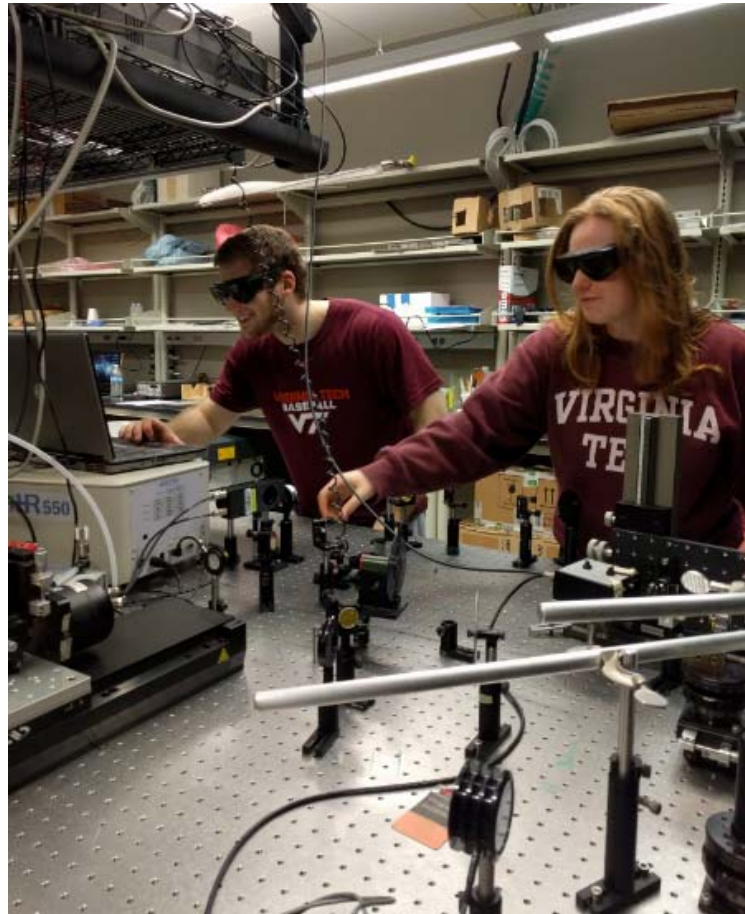




CUWIP 2017, ODU



Rathsara Herath
Joe Spencer

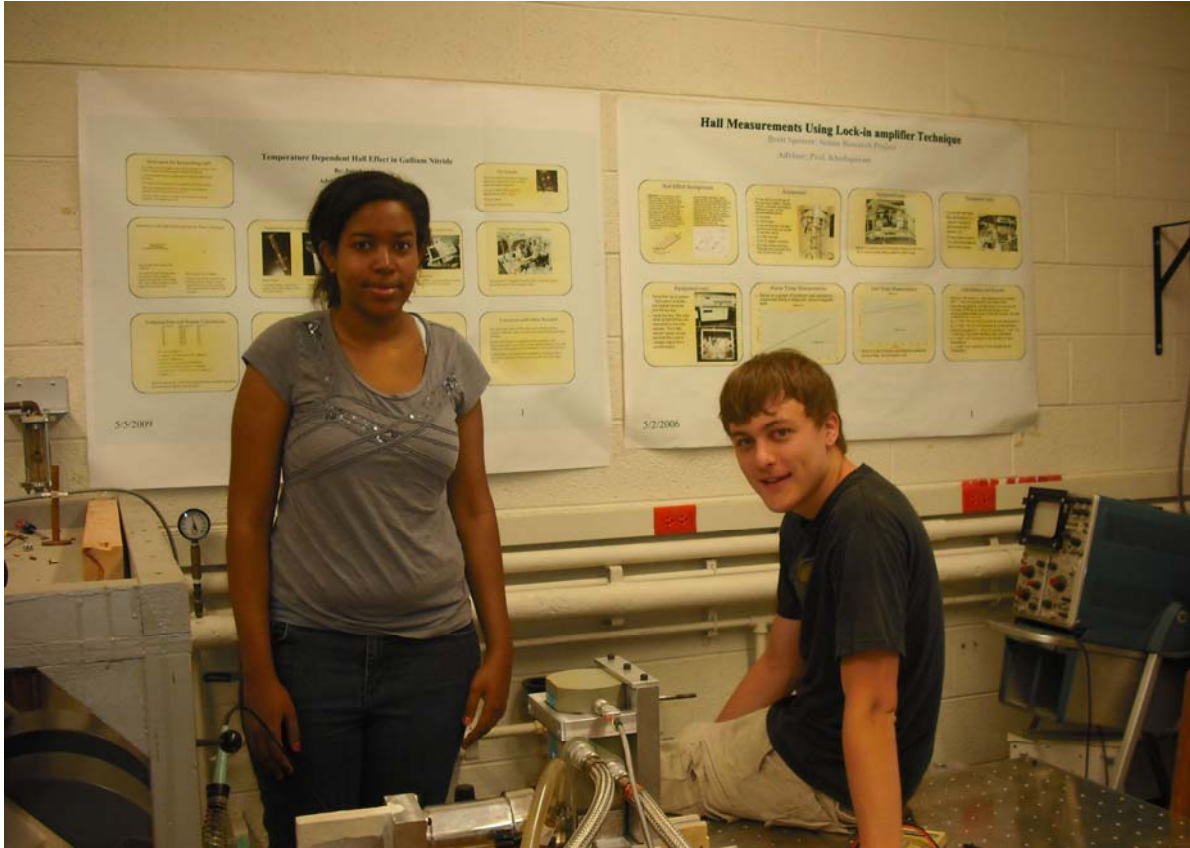


Moira Miller
Joe Spencer

Kanokwan Nontapot



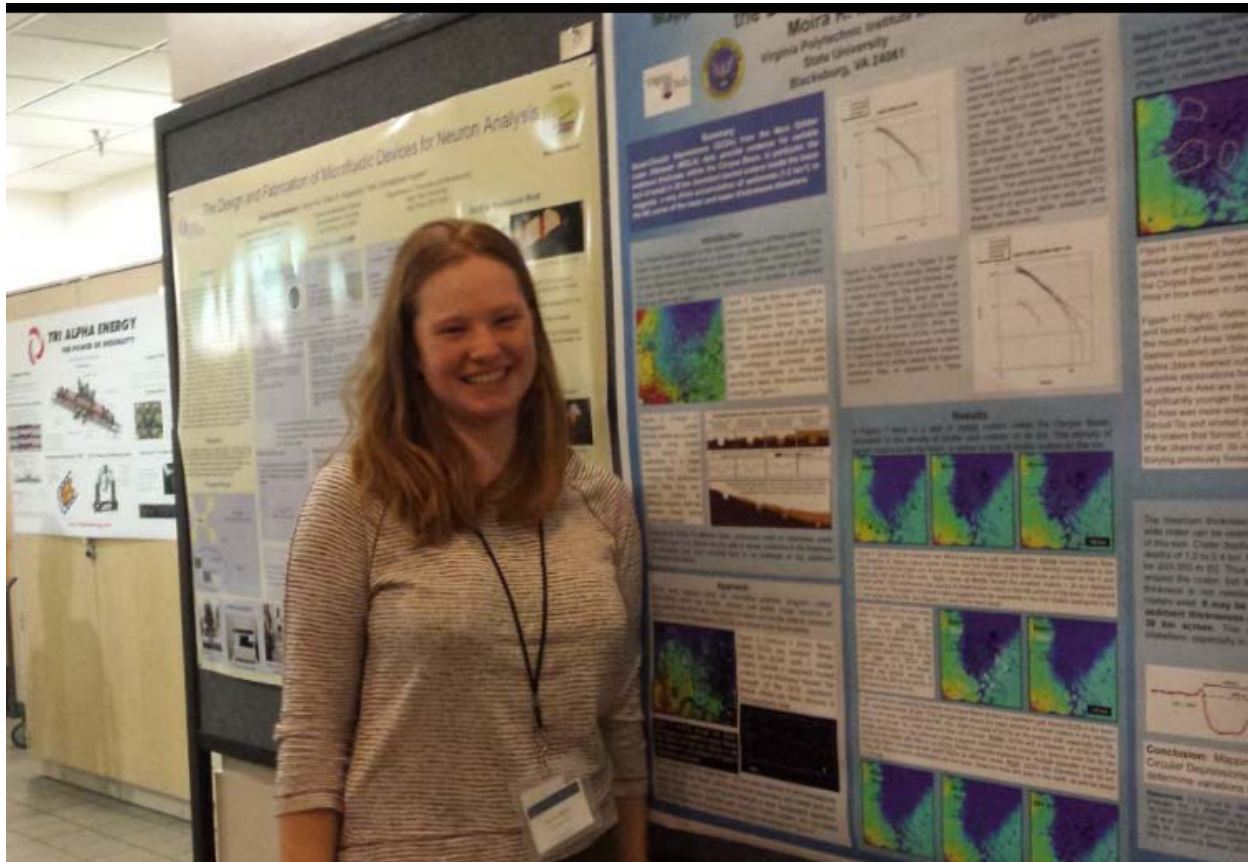
John Burton



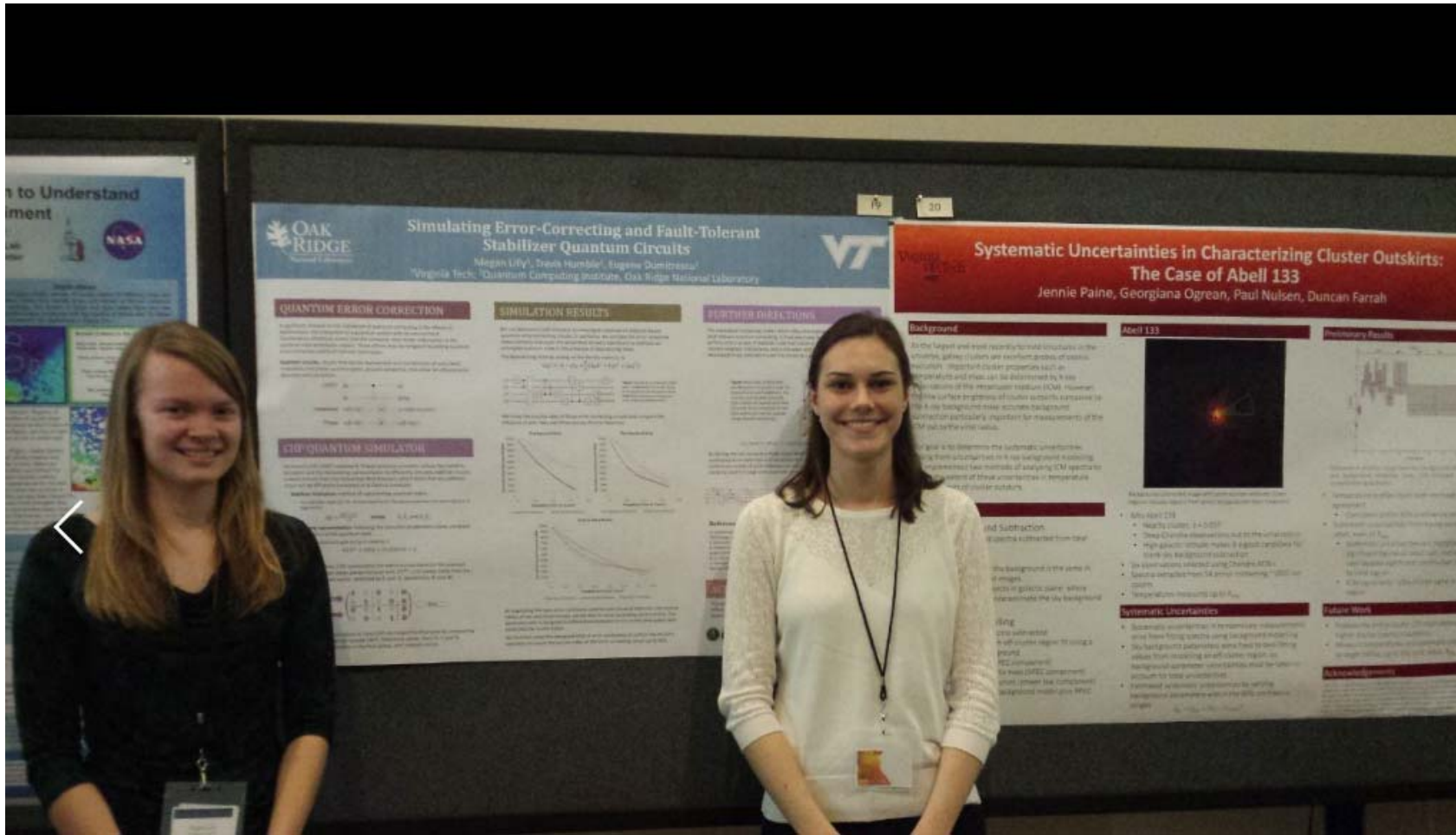
Amnah Eltahir and Dough Willson



Emily Wade in the middle



Moira Miller



Simulating Error-Correcting and Fault-Tolerant Stabilizer Quantum Circuits

Megan Lily, Travis Harbelle, Eugene Dumitrescu
Virginia Tech, Quantum Computing Institute, Oak Ridge National Laboratory

QUANTUM ERROR CORRECTION

Quantum error correction (QEC) is a technique for protecting quantum information from errors due to decoherence and other quantum noise. It is a key component of quantum computing and quantum communication.

SIMULATION RESULTS

Our simulation of the stabilizer quantum circuit shows that the error rate is significantly reduced compared to a classical simulation. The results are shown in the following plots.

FURTHER DIRECTIONS

Future work includes extending the simulation to larger systems and exploring different error correction codes.

Systematic Uncertainties in Characterizing Cluster Outskirts: The Case of Abell 133

Jennie Paine, Georgiana Ogrea, Paul Nulsen, Duncan Farrah

Background

Galaxy clusters are excellent probes of cosmic evolution. Important cluster properties such as their mass and physical size are determined by the distribution of the intergalactic medium (IGM). However, the low surface brightness of cluster outskirts compared to the IGM background make accurate background subtraction particularly important for measurements of the IGM and baryonic mass.

Abell 133

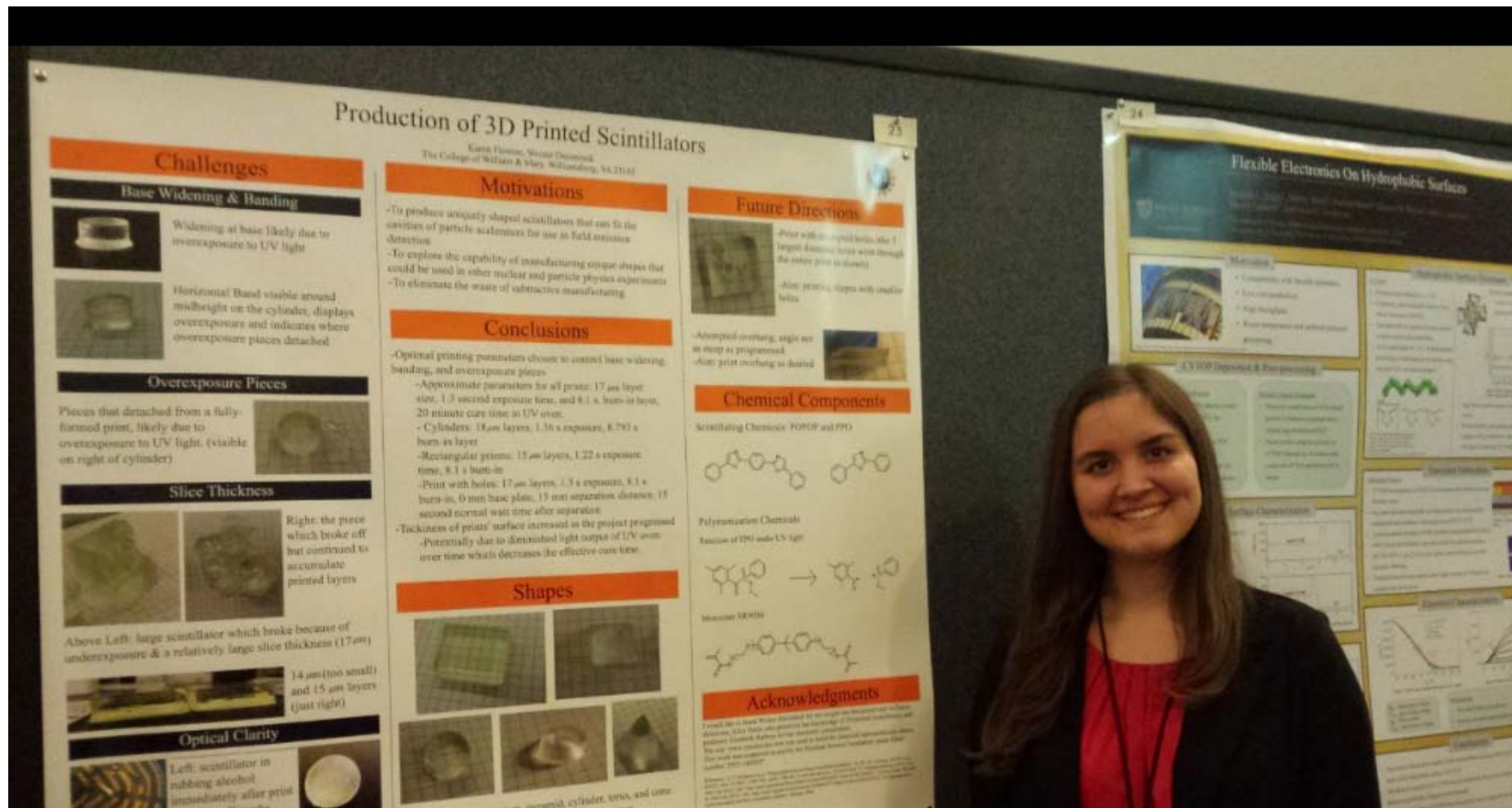
Abell 133 is a rich cluster of galaxies located at a redshift of $z \approx 0.15$. It is a good example of a cluster with a well-defined core and a diffuse, extended outskirts.

Background Subtraction

The background is the sum of all light from galaxies outside the cluster. It is a major source of uncertainty in cluster mass measurements.

Future Work

Future work includes extending the simulation to larger systems and exploring different error correction codes.



John Ficene's granddaughter

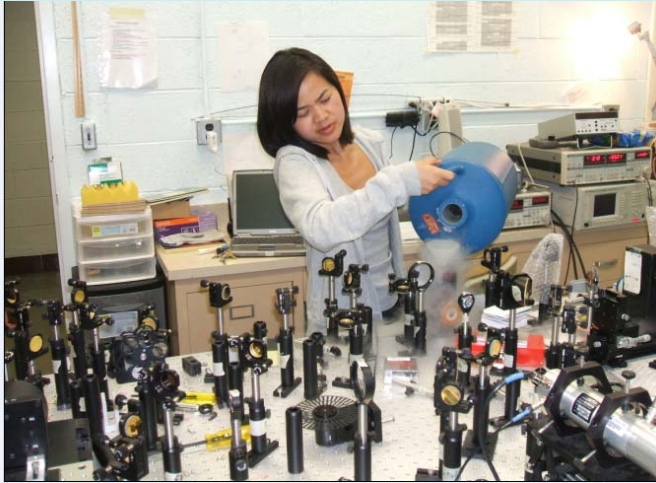


Millie at APS March Meeting 2016, Baltimore

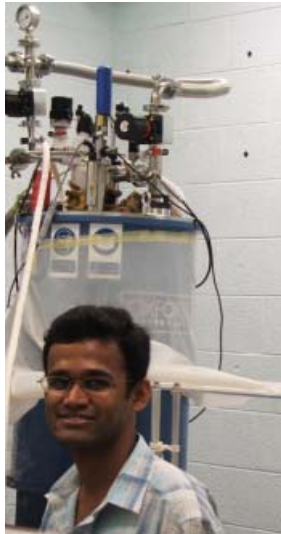


Ralph Romera and Michael Meeker

Kanokwan Nontapot, PhD 2008
Currently in a research center in Thailand



Matt Frazier, PhD, Physics Teacher



Dr. Rajeev Kini, Former Post Doc
Currently a faculty in India

NHMFL VISIT 2005



Group of Prof. Khodaparast regularly visits the High Magnetic Field laboratory in Tallahassee Florida



Giti, Steve McGill, Madalina Furis at NHMFL, FL



Jon Cates, BS 2010
PhD student at Virginia Tech, Fall 2010



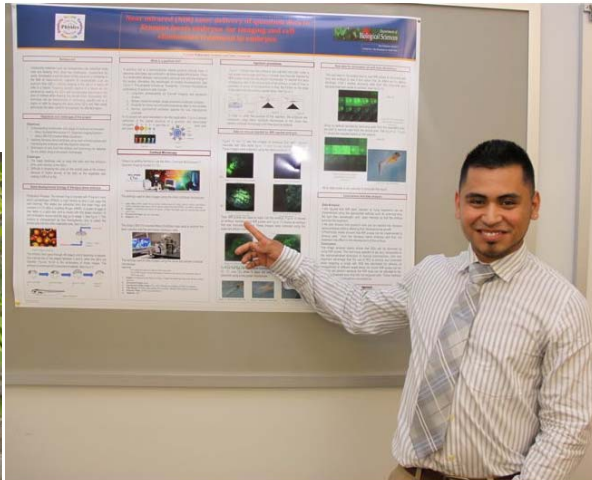
Justin Waugh, BS 2010
PhD student at Univ. of Colorado, Fall 2010



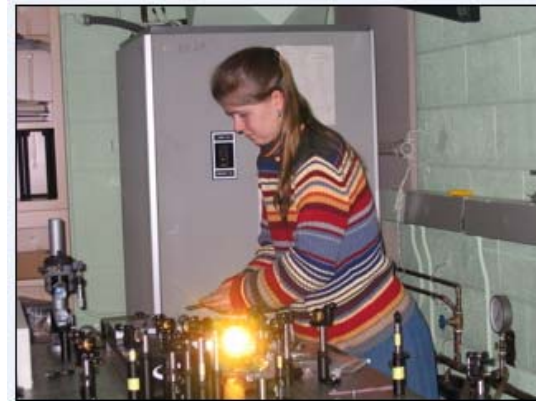
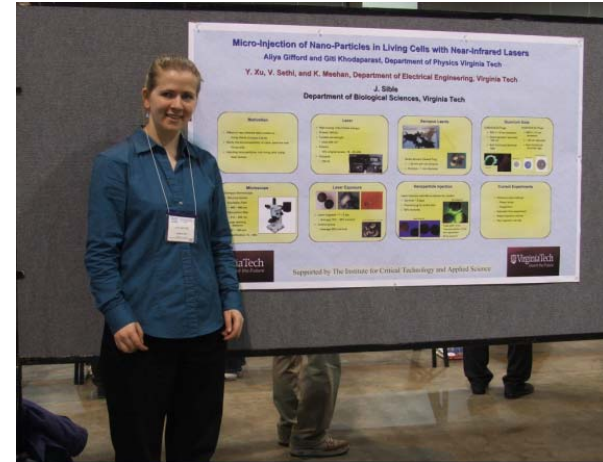
Brett Spencer, BS 2007
PhD Student RPI



Emily Wade, BS 2008
PhD Student Oregon State



Jose Umanzor-Alvarez, BS 2010
Graduate Student VT-PREP



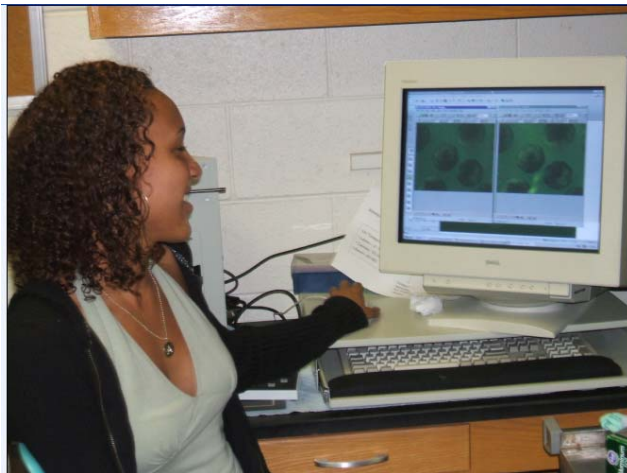
Aliya Gifford, Masters 2007
Research Scientist, Vanderbilt Univ.



Bryan Byrnes, with his home built magnet



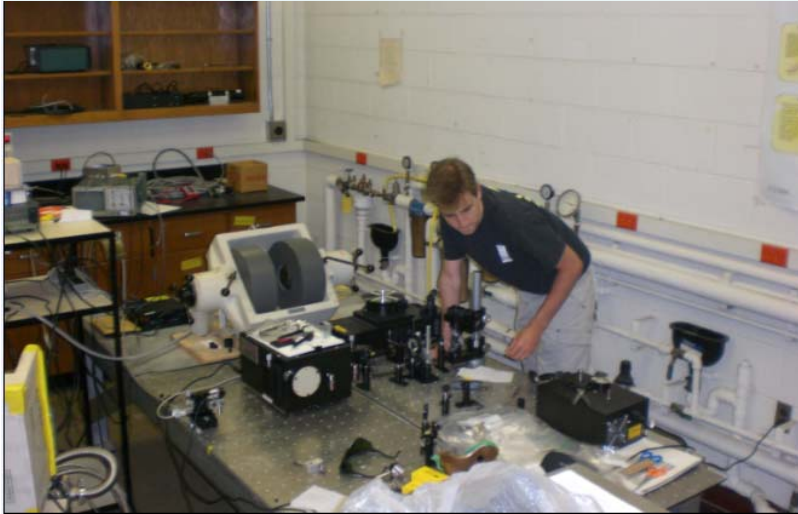
One high school student, Ashley Aissis, is setting up a photoluminescence measurement with the help of Jon Cates.



Ariana Reese, an REU student from Norfolk State, learning the operation of a two-photon confocal microscope



Travis Merritt, a PhD student is setting up PL measurements



Mithun Bhowmick, a PhD student is setting up his time resolved measurements, currently a faculty at Miami Univ. in Ohio.

