

## Kevin E. Claytor

Address: 401 Archdale Dr. Apt 1204  
Durham, NC. 27707  
Phone: (505) 231-8459  
E-mail: ke.claytor@duke.edu  
Website: <http://people.duke.edu/~kec30/>

### Education:

Duke University Graduate Student, Physics, Ph.D track.  
Rice University B.S. Physics and B.A. Mathematics (2009)

### Research Experience:

- Duke University – Graduate Student with Dr. Warren Warren. 2010 – Present.  
<http://www.chem.duke.edu/~wwarren/>
- Rice University – Undergraduate researcher with Dr. Stephan Link. 2008 – 2009.  
<http://slink.rice.edu/>
- University of Illinois at Urbana Champaign – Research Experience for Undergraduates (NSF REU) with Dr. Ido Golding. 2008.  
<http://people.duke.edu/~kec30/colony.html>
- Los Alamos National Laboratory – Earth and Environmental Science Division (EES) with Dr. James TenCate. 2003 – 2009.  
<http://people.duke.edu/~kec30/pmspace.html>

### Papers:

- K. Claytor**, T. Theis, Y. Feng, W. S. Warren. “Measuring long-lived  $^{13}\text{C}_2$  state lifetimes at natural abundance.” *Journal of Magnetic Resonance*. February 2014. Vol. 239, pp.81-86.
- B. Li, **K. E. Claytor**, H. Yuan, T. Vo-Dinh, W. S. Warren, M. C. Fischer. “Multi-Contrast Nonlinear Optical Microscopy with a Compact and Rapid Pulse Shaper.” *Optics Letters*. 1 July, 2012.
- K. Claytor**, S. Khatua, J. Guerrero, J. Tour, S. Link, “Accurately Determining Single Molecule Trajectories of Molecular Motion on Surfaces,” *Journal of Chemical Physics*. Vol. 130 No. 16. 2009.
- K.E. Claytor**, J.R. Koby, J.A. TenCate, “Limitations of Preisach Theory: Elastic aftereffect, congruence, and end point memory,” *Geophysical Research Letters*. 36, L06304, 2009.
- S. Khatua, J. Guerrero, **K. Claytor**, G. Vives, A. Kolomeisky, J. Tour, S. Link, “Micrometer-Scale Translation and Monitoring of Individual Nanocars on Glass,” *ACS Nano Article ASAP*. Jan 9. 2009.

## Awards:

- Experimental Nuclear Magnetic Resonance Conference (ENC) (2013): ENC Student Travel Grant
- Robert A. Welch Foundation (2007): Predoctoral Fellowship (Grant No. C-1664)
- Siemens-Westinghouse Competition (2004): National Winner
- Intel Science Talent Search (2004): Semi-finalist.
- Lucent Global Science Scholar (2005): National Finalist.

## Posters and Presentations:

- K. E. Claytor**, T. Theis, Y. Feng, W. Warren. “Longer-lived Singlets in Chemically Equivalent Systems.” Experimental Nuclear Magnetic Resonance Conference, 2014. Poster
- K. E. Claytor**, T. Theis, Y. Feng, W. Warren. “Identifying Long Lived Singlet States From Natural Abundance Samples.” Experimental Nuclear Magnetic Resonance Conference, 2013. Poster, Presentation.
- K. E. Claytor**, W. Warren, M. Fischer. “Femtosecond Pulse Shaping Enables Nonlinear Imaging in Highly Scattering Materials.” Frontiers in Optics / Laser Science. 2011. Presentation.
- K. E. Claytor**, S. Kathyra, S. Link. Tracking Nanocars using Optical Methods. Rice Quantum Institute (RQI) Student Symposium. 2007. Poster
- K.E. Claytor**, J. A. TenCate. A Novel Investigation of Nonlinear Rock Properties. LANL Student Symposium. 2006. Poster. (Awarded the “Best Undergraduate Research Poster” in Earth and Environmental Sciences.)
- K. E. Claytor** and J. A. TenCate. “Stress Strain Curves in Rocks.” Presented at the 10<sup>th</sup> International Conference on Non-Linear Dynamics. 2003. Presentation.

## Broader Impacts:

- **BOOST Program** (2011-2013) – Mentored 7<sup>th</sup> and 8<sup>th</sup> grade minority students in the sciences. This program involved a monthly large group mentoring with ~30 students, and biweekly meetings with a group of four students, culminating in an end of year symposium for which the students presented a poster. Contact: Solita Denard (solita.denard@duke.edu).
- **Duke Physics Graduate Student Organization** (2009-Present) – President, Class Representative, Web Design. Contact: Duke Physics Director of Graduate Studies (dgs@phy.duke.edu).
- **Duke Physics and Chemistry Outreach** (2011-Present) – Science demonstrations ~1/semester. Contacts: Ken Lyle (kenneth.lyles@duke.edu) and Derek Leadbetter (derek.leadbetter@duke.edu).
- **Lab Assistant for the Blind and Visually Impaired** (2008-2009) – Provide assistance to BVI students in upper level physics labs. Contact: Jean Ashmore (ashmore@rice.edu).
- **Martel Mentors** (2007-2009) – Volunteer mentoring of college courses. Contact: Jenna Mueller (jenna.mueller@duke.edu).
- **Martel College Government** (2007-2009) –Prime Minister, Senior Class Representative. Contact: Gerald Dickens (jerry@rice.edu)