



Engineering and Science Education Seminar  
Friday, December 5, 2008, 3:30 – 4:30 pm  
422 Rhodes Engineering Research Center

## **Unraveling Bias from Student Evaluations of their Science Teachers**

Dr. Geoffrey Potvin  
Clemson University

In this study, the evaluation of high school biology, chemistry, and physics teachers by their students is examined according to the gender of the student and the gender of the teacher. Female teachers are rated significantly lower than male teachers by male students in all three disciplines, while female students under-rate female teachers only in physics. Interestingly, physics is also the field that suffers the greatest lack of females and has been criticized most for its androcentric culture. The gender bias in teacher ratings persists even when accounting for academic performance, classroom experiences, and family support. Further, male and female teachers in each discipline appear equally effective at preparing their students for future science study in college, suggesting that students have a discipline-specific gender bias. Such a bias may negatively impact female students and contribute to the loss of females in STEM fields.

### **Presenter Biography**

Dr. Geoff Potvin is an Assistant Professor in the Departments of Engineering & Science Education and Mathematical Sciences at Clemson University. He completed his MS (2001) and PhD (2006) at the University of Toronto, studying gravitational aspects of string theory and the connection to black holes and spacetime singularities, after completing a BS (2000) in physics at the University of Waterloo. He went on to postdoctoral work in the Curry School of Education at the University of Virginia, studying graduate education in the physical sciences as part of a mixed methodological study entitled “Project Crossover: A study of the transition from student to scientist”. His current work focuses on education reform in the physical sciences at the K-12 and post-secondary levels. In particular, he is interested in issues of representation in physics and chemistry and the investigation of the domains of identity and attitude and their connection to persistence in the physical sciences. He has taught for nearly a decade at all levels of post-secondary education, ranging from introductory physics for first year non-science majors to advanced quantum mechanics for senior physics majors. He has also written a number of “popular science” articles that introduce lay readers to current issues in theoretical physics including string theory, extra dimensions, and black hole thermodynamics.

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