

# Julie E. Managan

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- Profile:**
- Career Goal: graduate study leading to research position in particle physics
  - Research skills: ROOT program, data logistics, material property simulations
  - Computer skills: Unix, C/C++, Perl, grid computing (PBS)
- Education:**
- Vanderbilt University, Nashville TN  
College of Arts & Sciences  
B.A. in Physics, 2009  
Honors in Physics, *summa cum laude*  
Minor: General Music
- Awards**
- Phi Beta Kappa, Vanderbilt University 2009
  - Underwood Memorial Scholarship, Dept. of Physics 2009
  - McMinn Scholarship, Dept. of Physics 2007 – 2009
  - Earnest A. Jones Scholarship, Dept. of Physics 2007
  - College Scholar, Vanderbilt University 2005 – 2009
  - National Merit Finalist and Award Winner 2005
- Leadership**
- Victory A Cappella choir, Musical Director 2007 – 2009
- Experience:**
- National Honor Society Member 2004 – 2005
- Research Experience:**
- Vanderbilt University – *High Energy Physics group* 2007 – 2009
    - Optimized the REDDnet data logistics network for the CMS Tier-3 data center at Vanderbilt.
    - Learned about the challenges of “big data”, using grid computing systems, and the ROOT software program.
    - Three weeks at CERN as part of the McMinn Scholarship.
  - Lawrence Livermore National Laboratory – *Beam Research group* 2007
    - Modeled surface flashover of annular dielectrics in high gradient electric fields for development of the Dielectric Wall Accelerator, a compact accelerator designed for proton radiation therapy.
    - Presented a research poster at LLNL undergraduate poster session.
- Publications:**
- J. R. Harris, D. Blackfield, G. J. Caporaso, Y. J. Chen, S. Hawkins, M. Kendig, B. Poole, D. M. Sanders, M. Krogh, and J. E. Managan, “Vacuum Insulator Development for the Dielectric Wall Accelerator”, *J. Appl. Physics* **104** 023301 (2008).
  - J.E. Managan and J.R. Harris, “Simulation of Electron Trajectories Inside an Annular Dielectric”. *U.S. Dept. of Energy Journal of Undergraduate Research* **8** (2008), 252.
- References:**
- Dr. Paul Sheldon – PI, Vanderbilt HEP [paul.sheldon@vanderbilt.edu](mailto:paul.sheldon@vanderbilt.edu)
  - Dr. John Harris – LLNL Beam Research Group [harris98@llnl.gov](mailto:harris98@llnl.gov)