

Deseree Meyer

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Education: *Yale University, New Haven, CT*

Ph.D., Experimental Nuclear Physics, May 2006

M.Phil., Physics, May 2005

M.S., Physics, December 2003

B.S., Physics, May 2001

Present position

Assistant Professor of Physics (tenure-track), *Rhodes College Memphis, TN*

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- taught Fundamentals of Physics I and II (calculus-based), Fundamentals of Physics Lab I and II, Modern Physics, and Nuclear Physics
- successfully employed pedagogical tools in the classroom: the Personal Response System (PRS) and Just-In-Time teaching (JITT)
- began an experimental nuclear physics research program at Rhodes. Computing resources for data analysis have been established, and I have traveled with undergraduate students to lead and participate in accelerator experiments at Yale University.
- committed to undergraduate research. I have involved students in my research over the summer and throughout the academic year, maintaining ties to experimental groups at Yale University, Lawrence Livermore National Laboratory, Argonne National Laboratory, and abroad. (These collaborations welcome undergraduate students and are active all year.) I have also become the Advisor for Undergraduate Research in Physics. I advise students about the importance of undergraduate research, opportunities, and applications.

Research experience

Ph.D. candidate, Wright Nuclear Structure Laboratory (Aug. 2001-Dec. 2005)

- led and collaborated with scientists on experiments in the US and Europe.
- interpreted key scientific results in cutting-edge research (the first spectroscopic study of ^{209}Fr and a systematic study of 0^+ states).
- work well under pressure with both attention to detail and understanding of larger context of project.
- designed experiments with physics principles in mind then developed and managed all aspects including hardware, electronics, detectors, data collection and analysis, calculations, results, and publication.
- directly mentored six undergraduate and graduate students at WNSL -- guided their work, advised them on the scope and direction of their research, explained relevant concepts and procedures, and imparted enthusiasm for scientific exploration.

Grants

- PI: *Investigation of structural evolution of shape-phase transitional nuclei using the E-GOS (E-Gamma Over Spin) method*, Research Corporation, November 2007, \$51,918 (pending).

Professional Involvement

- member of advisory committee for the Conference Experience for Undergraduates (CEU) at the Division of Nuclear Physics (DNP) of the American Physical Society annual meeting
- member of various users groups for facilities centered around nuclear physics research (FRIB/RIA, Gammasphere, Greta/Gretina, ATLAS)
- member of Sigma Pi Sigma, Society of Physics Students, the American Physical Society, and the American Association of Physics Teachers

Publications: 37

Invited talks: 4

Contributed talks: 10

Conference participation: 15, including one teaching-related workshop

Mentored students: 9, including six while a graduate student

Honors

- selected as member of the American delegation to the 54th Lindau Meeting of Nobel Laureates and Students

Student honors

- C. R. Fitzpatrick: UK National Physical Laboratory Award for Best Physics Student, 2006

Selected publications and invited talks:

- *A Research Journey From Then to Now: Investigation of ^{100,101}Pd*, Invited Talk. 2007 Annual Meeting of the Division of Nuclear Physics of the American Physical Society, October 2007.
- *A Research Journey From Then to Now: Investigation of ^{100,101}Pd*, Invited Talk (poster winner). 2007 Gordon Research Conference on Nuclear Chemistry, June 2007.
- D. Bucurescu, *et al.*, submitted.
- A.B. Hayes, *et al.*, Physical Review **C 75**, 034308 (2007).
- T. Grahn, *et al.*, Physical Review Letters **97**, 062501 (2006).
- A.B. Hayes, *et al.*, Physical Review Letters **96**, 042505 (2006).
- S.D. Langdown, *et al.*, (submitted).
- D. A. Meyer, *et al.*, Physical Review C **74**, 044309 (2006).
- D. A. Meyer, *et al.*, Physical Review C **73**, 024307 (2006).
- E. Williams, *et al.*, Physical Review **C 74**, 024302 (2006).
- D.A. Meyer, *et al.*, Physics Letters **B 638**, 44 (2006).
- D. Bucurescu, *et al.*, Physical Review **C 73**, 064309 (2006).
- E.A. McCutchan, *et al.*, Physical Review **C 73**, 034303 (2006).
- M. S. Fetea, *et al.*, Physical Review C (Rapid Communications) **73**, 051301(R) (2006).
- J.J. Ressler, *et al.*, Physical Review **C 71**, 014302 (2005).
- T. Grahn, *et al.*, European Physical Journal **A 25**, s01, 441 (2005).
- A. Wolf, *et al.*, Physical Review **C 72**, 027301 (2005).
- E.A. McCutchan, *et al.*, Physical Review **C71**, 024309 (2005).
- R.B. Cakirli, *et al.*, Physical Review **C70**, 044312 (2004).
- J.J. Ressler, *et al.*, Physical Review **C69**, 034331 (2004).
- E.A. McCutchan, *et al.*, Physical Review **C69**, 024308 (2004).
- J.J. Ressler, *et al.*, Physical Review **C69**, 034317 (2004).
- J. J. Ressler, *et al.*, Nuclear Instruments and Methods in Physics Research **B 204**, 141 (2003).
- P. H. Regan, *et al.*, Physical Review Letters **90**, 152502 (2003).
- A. A. Hecht, *et al.*, Physical Review **C68** (2003) 054310.