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Chair, Nuclear Experiment Search
Department of Physics
300 Ukrop Way
College of William and Mary
P.O. Box 8795
Williamsburg, VA 23187-8795

Dear Chair of the Search Committee,

I am writing you to apply for the instructional faculty position “Assistant Professor in Experimental Nuclear Physics.” I learned about this opportunity through colleagues at the Jefferson Laboratory, where I am currently performing postdoctoral research for the Massachusetts Institute of Technology on the Q_{Weak} experiment. Your department has built up extensive expertise in parity-violating electron scattering and hadronic physics through several important experiments at the Jefferson Laboratory, and I believe that I would be a valuable addition to the department

When I joined the Q_{Weak} experiment at the Jefferson Laboratory in June 2008, the experiment had been in the planning and design stage for several years. I am currently heavily involved in both the parity and tracking analysis aspects. The Q_{Weak} experiment will start collecting data in May 2010, and the results with their full statistical power will be available soon after our scheduled end-date in May 2012.

At the Jefferson Laboratory, I am currently also involved in the construction of the photon detector for a new Compton polarimeter, a crucial component for the success of the Q_{Weak} experiment. I organize weekly analysis and status meetings, and I started a monthly journal club meeting to provide the ten on-site Q_{Weak} graduate students in the project with an opportunity to learn about seminal papers and recent advances in the study of fundamental symmetries. Both at the University of Michigan and at MIT, I taught several lectures and exercise sessions at the introductory undergraduate level and assisted in mentoring undergraduate and graduate students from other institutions.

Although my main focus is currently on the Q_{Weak} experiment and other parity-violating electron scattering experiments at Jefferson Lab, I am also involved in the two nuclear physics experiments A2 and A4 in Mainz, Germany, and in the

preliminary design stages of an electron-ion collider. The overarching theme in all of these experiments is the precision measurement of electroweak observables at hadronic energy scales through the breaking of fundamental symmetries.

I have arranged for reference letters to be sent to you by my current employer and spokesperson of the Q_{Weak} experiment Prof. Stanley Kowalski at the Massachusetts Institute of Technology, my Ph.D. advisor Prof. Wolfgang Lorenzon at the University of Michigan, and the staff scientists Dr. Dave Gaskell and Dr. Dave Mack at the Jefferson Laboratory.

Please let me know if you have any questions. I look forward to hearing from you and hope to meet with you in person.

Sincerely yours,

Wouter Deconinck

encl: Curriculum vitae, list of publications, research statement