

# Patrick D. Ryan

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CONTACT INFORMATION      p.a. CERN      *Office:* +41-22-76-7-9633  
Route de Meyrin      *Mobile:* +49 162-106-3315  
1217 Meyrin      *E-mail:* pryan@pa.msu.edu  
Switzerland      *WWW:* www.pa.msu.edu/~pryan

PERSONAL      Date of Birth: October 21, 1977  
Citizenship: United States

EDUCATION      **University of Wisconsin**, Madison, Wisconsin USA      **May 2000 - July 2006**  
Ph.D. Experimental Particle Physics, August, 2006  
- Member of ZEUS Collaboration at DESY  
- Dissertation Topic: "Rapidity Gaps Between Jets in Photoproduction at HERA"  
- Advisors: Wesley Smith and Don Reeder  
M.S. Physics, December, 2001  
**College of William and Mary**, Williamsburg, Virginia USA      **Aug 1996 - May 2000**  
B.S. Physics, May, 2000  
- Graduated Summa Cum Laude with Highest Honors in Physics

HONORS AND AWARDS      Vilas Travel Fellowship, 2004  
University of Wisconsin Fellowship, 2000  
William and Mary Alumni Award in Physics, 2000  
Phi Beta Kappa, 1999

EXPERIENCE      **Michigan State University**      **Aug 2006 - present**  
Research Associate on ATLAS experiment  
**University of Wisconsin-Madison**      **Aug 2000 - July 2006**  
Graduate Student  
Includes current Ph.D. research, Ph.D. and Masters level coursework and research.  
Teaching Assistant  
Shared responsibility for labs, discussion sections, exams, homework assignments, and grades for an introductory physics class.  
**Stanford Linear Accelerator Center**  
Undergraduate research and thesis on SLAC experiment E155x.      **1998 - 2000**

RESPONSIBILITIES      **ZEUS Experiment at DESY**  
ZEUS deputy and shift leader      **May 2002 - July 2006**  
Responsible for the safety, DQM, and running of the ZEUS experiment  
Calorimeter First Level Trigger (CFLT) Shifts      **May 2002 - July 2006**  
Maintenance, repair, and operation of ZEUS CFLT  
QCD Working Group Trigger Coordinator      **Jan 2003 - Jan 2005**  
Modification of QCD Group Trigger Slots, optimization of trigger rates and efficiencies.

COMPUTING  
EXPERIENCE

Operating Systems: Windows, Unix, Linux (including system administration)

Languages: C++, FORTRAN, Perl, Shell Scripting, HTML

Applications: PAW, ROOT, L<sup>A</sup>T<sub>E</sub>X, Microsoft Office Suite

CONFERENCE  
PRESENTATIONS

Parity Violation in Deep-Inelastic Electron-Nucleon Scattering at the SLAC.  
APS Division of Nuclear Physics Meeting, Pacific Grove, CA, October 1999. Poster Presentation.

Interjet Energy Flow Measured in ep Collisions at ZEUS.  
APS Division of Particles and Fields Meeting, Riverside, CA, August 2004.

Forward Jets Production at HERA.  
HEP 2005 Europhysics Conference. Lisbon, Portugal, July 2005.

Photoproduction of Events with Rapidity Gaps Between Jets at ZEUS.  
14th International Workshop on Deep Inelastic Scattering. Tsukuba, Japan, April 2006.

Photoproduction of Events with Rapidity Gaps Between Jets at ZEUS.  
HERA-LHC Workshop. CERN, Geneva, Switzerland, June 2006.

OTHER

Proficient in German (Zentral Mittelstufenprüfung Certificate from Goethe Institut)

REFERENCES

Professor Wesley Smith Department of Physics University of Wisconsin 1150 University Ave. Madison, W.I. 53706, USA +1 608-262-4690 wsmith@hep.wisc.edu	Professor Don Reeder Department of Physics University of Wisconsin 1150 University Ave. Madison, W.I. 53706, USA +1 608-262-8798 reeder@hep.wisc.edu	Dr. Rik Yoshida Argonne National Lab 9700 S. Cass Ave. Argonne, Il. 60439, USA +1 630-252-7874 rik.yoshida@anl.gov
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1. P. L. Anthony *et al.* [E155 Collaboration], “Precision measurement of the proton and deuteron spin structure functions  $g_2$  and asymmetries  $A(2)$ ,” *Phys. Lett. B* **553**, 18 (2003)
2. S. Chekanov *et al.* [ZEUS Collaboration], “Study of the pion trajectory in the photoproduction of leading neutrons at HERA,” *Phys. Lett. B* **610**, 199 (2005).
3. S. Chekanov *et al.* [ZEUS Collaboration], “Exclusive electroproduction of  $J/\psi$  mesons at HERA,” *Nucl. Phys. B* **695**, 3 (2004)
4. S. Chekanov *et al.* [ZEUS Collaboration], “The dependence of dijet production on photon virtuality in  $e p$  collisions at HERA,” *Eur. Phys. J. C* **35**, 487 (2004)
5. S. Chekanov *et al.* [ZEUS Collaboration], “Substructure dependence of jet cross sections at HERA and determination of  $\alpha(s)$ ,” *Nucl. Phys. B* **700**, 3 (2004)
6. S. Chekanov *et al.* [ZEUS Collaboration], “Measurement of beauty production in deep inelastic scattering at HERA,” *Phys. Lett. B* **599**, 173 (2004)
7. S. Chekanov *et al.* [ZEUS Collaboration], “Dissociation of virtual photons in events with a leading proton at HERA,” *Eur. Phys. J. C* **38**, 43 (2004)
8. S. Chekanov *et al.* [ZEUS Collaboration], “Search for a narrow charmed baryonic state decaying to  $D^{*+} p$  in  $e p$  collisions at HERA,” *Eur. Phys. J. C* **38**, 29 (2004)
9. S. Chekanov *et al.* [ZEUS Collaboration], “Study of deep inelastic inclusive and diffractive scattering with the ZEUS forward plug calorimeter,” *Nucl. Phys. B* **713**, 3 (2005)
10. S. Chekanov *et al.* [ZEUS Collaboration], “Search for pentaquarks decaying to  $\Xi \pi$  in deep inelastic scattering at HERA,” *Phys. Lett. B* **610**, 212 (2005)
11. S. Chekanov *et al.* [ZEUS Collaboration], “Search for lepton-flavor violation at HERA,” *Eur. Phys. J. C* **44**, 463 (2005)
12. S. Chekanov *et al.* [ZEUS Collaboration], “Multijet production in neutral current deep inelastic scattering at HERA and determination of  $\alpha(s)$ ,” *Eur. Phys. J. C* **44**, 183 (2005)
13. S. Chekanov *et al.* [ZEUS Collaboration], “Forward jet production in deep inelastic  $e p$  scattering and low- $x$  parton dynamics at HERA,” *Phys. Lett. B* **632**, 13 (2006)
14. S. Chekanov *et al.* [ZEUS Collaboration], “An NLO QCD analysis of inclusive cross-section and jet-production data from the ZEUS experiment,” *Eur. Phys. J. C* **42**, 1 (2005)
15. S. Chekanov *et al.* [ZEUS Collaboration], “Exclusive electroproduction of  $\Phi$  mesons at HERA,” *Nucl. Phys. B* **718**, 3 (2005)
16. S. Chekanov *et al.* [ZEUS Collaboration], “Measurement of inelastic  $J/\psi$  production in deep inelastic scattering at HERA,” *Eur. Phys. J. C* **44**, 13 (2005)
17. S. Chekanov *et al.* [ZEUS Collaboration], “Inclusive jet cross sections and dijet correlations in  $D^{*+}$  photoproduction at HERA,” *Nucl. Phys. B* **729**, 492 (2005)
18. S. Chekanov *et al.* [ZEUS Collaboration], “Measurement of charm fragmentation ratios and fractions in photoproduction at HERA,” *Eur. Phys. J. C* **44**, 351 (2005)
19. S. Chekanov *et al.* [ZEUS Collaboration], “Measurement of high- $Q^2$  deep inelastic scattering cross sections with a longitudinally polarised positron beam at HERA,” *Phys. Lett. B* **637**, 210 (2006)

1. HEP 2005 Europhysics Conference, Lisbon, Portugal, July 2005.  
P. Ryan [H1 and ZEUS Collaborations], "Forward jet production at HERA," PoS **HEP2005**, 053 (2006).