

James Norris
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4665 Robb St
Wheat Ridge CO 80033
720-898-5517

A problem solver holding graduate degrees in physics and philosophy with a strong background in mathematics who offers several years experience working in numerous research, educational and private industry environments. A quick learner who can quickly, with little direct experience, make useful contributions while working individually or in groups of any size. Willingly takes on leadership responsibility, supervise and mentor subordinates.

Education:

University of Kansas - Lawrence KS 66045, 785-864-5000	Jan 2000 - Dec 2004
Cumulative GPA: 3.55	Total Hours: 84
Degree Received: MA in Philosophy	Dec 2004
Degree Program: PhD in Philosophy	Program Hours: 34
Degree Program: PhD in High Energy Physics	Program Hours: 42
 Kansas State University - Manhattan KS 66506, 785-532-6011	 Jan 1994 - Dec 1999
Cumulative GPA: 3.05	Total Hours: 92
Degree Received: MS in High Energy Physics	Dec 1996
Thesis: A Measurement of $\frac{BR(D_s^+ \rightarrow f_0(980)\pi^+)}{BR(D_s^+ \rightarrow \phi(1020)\pi^+)} \cdot \frac{BR(f_0(980) \rightarrow K^+K^-)}{BR(\phi(1020) \rightarrow K^+K^-)}$ in Fermilab E791	
Degree Program: MS in Mathematics	Program Hours: 25
 Metropolitan State College - Denver CO 80217, 303-556-2400	 Jan 1990 - May 1993
Cumulative GPA: 3.41	Hours Completed: 121
Degrees Received: BS in Physics, BS in Philosophy, Minor in Mathematics	May 1993
Honors Received:	
Vice-President's Honor Roll	
Who's Who Among Students in American Universities and Colleges	AY 1993
Colorado Scholar's Award for Philosophy	AY 1991, 1992
 University of Colorado - Boulder CO 80309, 303-492-1411	 Aug 1983 - May 1987
Cumulative GPA: 2.34	Hours Completed: 62
Majors: Electrical Engineering, Humanities	

Capabilities:

Programming:	FORTAN, C, C++, Assembly, Javascript, Perl, VisualBasic, HTML, MySQL
Operating Systems:	Windows (95, 98, NT, XP), Mac (9, 10.1-4), UNIX, Linux
Hardware Systems:	Dell, Compaq, IBM, Apple
Network Systems:	Telnet, Apache, cgi-bin
Software:	Microsoft Office, Dreamweaver, Photoshop, GraphicConverter, Acrobat
Office Skills:	Typing (45-50 wpm), 10-key (50+ wpm)
Intellectual Skills:	Excellent analytical/critical reasoning skills (numerical and verbal); excellent skills in collecting, reducing and qualitative/quantitative analysis of data, excellent communication skills (written and verbal), leadership.
Manual Skills:	Machining, welding, liquid and gas plumbing, carpentry, hazardous (chemical and radioactive) material handling, mechanical, electronic and computer troubleshooting and repair, forklift operation.

Research Experience:

University of Kansas - Lawrence KS 66045

Spr 1999 - Fall 2002

Supervisor: Steve Sanders, Professor

With Tim Sobering, Director of Electronics Design Lab at Kansas State University, I designed a device that would allow the bias current of the Silicon MicroStrip Detector of the Mid-Rapidity Spectrometer (MIDS) on the Broad Range Hadron Magnetic Spectrometers (BRAHMS) Experiment at the Relativistic Heavy Ion Collider (RHIC) to be measured with sufficient accuracy and precision to maintain appropriate biasing.

I worked on the design of a threshold Cherenkov detector for the MIDS to allow identification of pions and kaons at momenta (>2.2 GeV/c) greater than allowed by the MIDS time-of-flight wall (TOFW). Initially this consisted of implementing a C++ simulation of the NA44 threshold Cherenkov detector in the BRAHMS physics generation software, gbrahms. When it became clear that the NA44 detector did not have sufficient sensitivity to high-momentum kaons, I began developing a threshold Cherenkov detector from scratch; this was again done in C++ and using gbrahms.

I worked closely with the KU Physics Department's machine shop in the machining of the detector, and helped machine parts of the detector. When the detector was machined, Prof Sanders and I began leak chasing and repairing what leaks we found prior to shipping the detector to BNL.

Kansas State University - Manhattan KS 66506

Spr 1995, AY 1996, Fall 1996

Supervisor: Tim Bolton, Professor

My Master's Thesis was an analysis of Fermilab E791, a "Study of Production and Decay of Charmed Particles Produced Using a 500GEV π^- Beam at the Fermilab Tagged Particle Spectrometer", $D_s \rightarrow K^+ K^- \pi$ data where we hoped to identify the $f_0(980) \rightarrow K^+ K^-$ signal by means of mass-peak histograms and Dalitz plots. The analysis was performed primarily on a Mac II networked to DecStation 5000/XXX's via PPP using X-windows, but also DecStation 5000/XXX's running Ultrix 4.X and NT-networked Pentium I & II PC's, using FORTRAN code and CERN's PAW. Data reconstruction was performed on 74 20-50 MHz DecStations, organized in 3 "farms"; the machines of each farm ran in parallel and were controlled by FORTRAN, C, and C++ code. Monte Carlo simulations were generated on 2 farms of 36 DecStations each, again controlled by FORTRAN, C, and C++ code using PYTHIA for physics generation and "home-written" FORTRAN, C, and C++ code for detector simulation.

Fermi National Accelerator Lab - Batavia IL 60510-0500

Sum 1995

Kansas State University - Manhattan KS 66506

Spr & Sum 1994

Supervisor: Chong Zhang, Post-Doc

C Zhang, Shih-Wen Yangs, and I developed and implemented a testing procedure and established rejection criteria for ~600 10 and 12 stage Hamamatsu photomultiplier tubes (PMTs) to be installed in the NuTeV (Fermilab experiment E815) Calorimeter. The testing procedures included measuring both relative and absolute gain, quantum efficiency and noise and recording these numbers in Microsoft EXCEL spreadsheets running on NT-networked Pentium I & II PC's. After the testing and rejection procedures were developed, I was placed in charge of testing, managing S Yangs and two undergraduate workers, Jen and Ryan Rutherford. I designed and built a light-tight box from 3/4" plywood using tongue-and-groove construction and a filter-wheel that held 10 photographic filters so that ten different levels of light-attenuation in the wave-shifter bar could be simulated, engineered "cookies"-clear silicone rubber inserts to hold Kodak filter material on the PMT face and to protect the PMT face from wave-shifter bars, and analyzed the frequency response of the wave-shifting bars.

Tubes were assembled with bases, mounting rings, filters and cookies, and shipped to Fermilab for installation in the NuTeV Calorimeter where S Yangs and I balanced the PMTs after they had been installed.

I also made an *in situ* radiation survey and collected samples for laboratory analysis of the π^- beam-dump berm.

Research Experience (cont):

Brookhaven National Lab - Upton NY 11973

Spr & Sum 1993

Supervisor: Flemming Videbaek, Senior Research Physicist

I developed FORTRAN code which simulated and (partially) analyzed the output of a Ring Imaging Cherenkov (RICH) Detector for the Broad Range Hadron Magnetic Spectrometers (BRAHMS) Experiment at the Relativistic Heavy Ion Collider (RHIC) on a DEC VAXStation running VMS.

In addition, I participated in testing the response of a prototype PMT (10cm x 10cm, pixelated to 100 1cm x 1cm pixels) to Cherenkov radiation emitted by pions created at the Alternating Gradient Synchrotron. I designed and built the test stand and cooling apparatus for the prototype and performed preliminary tests of its single photon response. My participation was partially funded by the DOE through the Science and Engineering Research Semester (SERS) Program.

Kansas State University - Manhattan KS 66506

Jun 1992 - Aug 1992

Supervisors: Itzhak Ben-Itzhak, Professor

Larry Weaver, Professor

Duane Johnson and I analyzed data from a fragmentation of CH₄ due to impact of high velocity p⁺ experiment performed the previous summer by I Ben-Itzhak. The result of our analysis was the relative cross-sections for the various fragmentation channels. My participation was partially funded by the NSF through the Summer Research Experiences for Undergraduates Program.

I presented the results of our analysis at the XI Applications of Accelerators in Research and Industry, in Denton TX on November 6, 1992.

University of Colorado - Denver CO 80217

Spr 1992

United States Air Force Academy - Colorado Springs CO 80840

Supervisors: Randy Tagg, Professor, University of Colorado at Denver

Clyde Zaidins, Professor, University of Colorado at Denver

Rex Kiziah, Captain, United States Air Force Academy

With the help of Cpt Kiziah, we attempted to produce ⁵⁷Co by bombarding ⁵⁶Fe in a target piece of high grade industrial steel with deuterons using the Academy's 2 MeV Pelletron. We were unable to demonstrate that we achieved this goal, but were able to demonstrate that we had produced ¹³N from the ¹²C present in the steel target we were using.

Prior to the experiment, I modeled the thermal properties of the target to ensure that it would not melt and/or vaporize and thereby result in a liquid and/or gaseous radioactive environmental hazard.

Work Experience:

- EchoStar – Englewood CO 80112 Nov 2008- Present
Title: Program Manager I Salary: \$52,000/yr
I am a technical course developer and instructor for the software engineering division.
- Metropolitan State College of Denver – Denver CO 80217 Fall 2008
Title: Adjunct Professor Salary: \$2952/3 cr hr course
I taught 2 sections of PHIL1010 – Introduction to Philosophy and 1 section of PHIL1030 – Ethics in Fall 2008.
- University of Colorado at Denver - Denver CO 80217-3364 Sum & Fall 2008
Title: Adjunct Professor Salary: \$3357/3 cr hr course
I taught 1 section of PHYS2010 - College Physics I in Summer 2008 and 1 section of PHIL1020 – Ethics in Fall 2008.
- QualxServ - Tewksbury Massachusetts 01876-1253 May 2007 – Nov 2008
Title: Field Service Technician Salary: ~\$35,000/yr
I was hired as a field service technician for Dell, IBM and Apple computers.
- Ottawa University - Ottawa KS 66067 Fall 2007
Title: Adjunct Professor Salary: \$3500/ 4 cr hr course
I was hired to teach one section of PHYS 22043 - College Physics and Lab in Fall 2007.
- Andax Industries LLC - St. Marys KS 66536 Feb 2007 - March 2007
Title: Web Designer Salary: \$32,000/yr
I was their web designer and managed their eCommerce and databases necessary for eCommerce.
- Manhattan Area Technical College - Manhattan KS 66503 Aug 2006 - Nov 2006
Title: Instructor Salary: ~\$41,000/yr
I was hired as Math Instructor in Fall 2006 to teach 2 sections of MA104 – Technical Math and 2 sections of MA106 – Workplace Math.
- First Command Financial Services - Manhattan KS 66502 Mar 2006 - Aug 2006
Title: Administrative Assistant Salary: \$8.50/hr
I worked as an administrative assistant to Financial Advisor Dan Seemann; my duties included answering the phone, scheduling appointments for Dan and other advisors in the office, arranging for medical exams for clients, filing, data entry, form completion and proofreading, follow-up with insurance, investment and equity fund phone support personnel and clients, and writing occasional MS Excel macros to make other AA's and the advisors' lives easier – this last was not in my job description but I like to do what I can to make people's lives easier.

Work Experience (continued):

Sager Dental - Manhattan KS 66502

Dec 2004 - Jan 2005

Oct 2005 - Jan 2006

Title: Web Designer/IT Consultant Salary: \$30,000/yr

I was hired in Dec 2004 by Dr David Sager to create a website to market and develop a customer base for a dental product which Dr Sager calls ZIRCore. The website is to consist of a html-based front end a fully scalable database back-end. Over the 2004-2005 Christmas I developed two versions of the html front-end, and identified MySQL as the database product that would be used to implement the database back-end when Dr Sager had secured sufficient investment capitol to do so and launch the website.

I was hired again Oct 2005 by Dr David Sager to implement the database back-end for the ZIRCore website and setup an in-house server for the website. I identified Apache as the appropriate server software and PERL as the appropriate html-database interface.

Topeka High School, Topeka KS 66612

Aug 2005 - Oct 2005

Title: Teacher Salary: \$34,153/yr

I was hired as a Transition to Teaching participant in Fall 2005 to teach AP Physics, 2 sections of Physics, Geometry and GeometryAB.

Bethany College - Lindsborg KS 67456-1897

Aug 2004 - May 2005

Title: Adjunct Professor Salary: \$2,275/3 cr hr course

I was hired in Fall 2004 to teach two sections of MA101-Intermediate Algebra by Prof Murphy and asked to teach another section in Spring 2005 and asked by Prof Yorton to teach a section of PL102-Ethics in Spring 2005.

Baker University - Baldwin City KS 66006-0065

Sep - Oct 2002

Title: Adjunct Professor Salary: \$2,400.00/3cr hr course

I was hired to teach for Prof Jane MacGibbon (an Australian national) until her VISA/Work Permit was granted by the State Department/INS. Prof MacGibbon and I consulted concerning the course and she assigned homework via email. I modified and administered a 20 question multiple choice "pop" quiz supplied by Prof MacGibbon, and I wrote and administered the exam over the material covered by myself prior to her arrival. I performed all the grading prior to her arrival, and generated my own lecture notes.

Barton County Community College - Fort Riley KS 66442-0463

Jun 1999 - Aug 2001

Title: Adjunct Instructor (Online) Salary: \$1200.00/online course

Jun 1999 - Aug 2001

Adjunct Instructor

Salary: \$900.00/3cr hr course

Mar 2000 - Aug 2001

I taught the 8 week BARTONline PHIL1605 - Introduction to Logic, the 8 and 16 week BARTONline PHIL1602 - Introduction to Philosophy, the College (8 week, night) courses: PHIL1602 - Introduction to Philosophy, MATH1824 - Intermediate Algebra, MATH1821 - Basic Algebra, and MATH1806 - Technical Math, and the LSEC (6 week, day) course: PHIL1602 - Introduction to Philosophy.

Boulder Yellow Cab - Boulder CO 80303

Mar 1985 - Feb 1986

Title: Cab Driver

Salary: \$25/shift+tips

I drove a cab, and am certain that, looking back on my life from my deathbed, that I will regard this job as the best of my life.

Publications and Presentations:

JOURNAL PUBLICATIONS (Representative)

1. The Promise of Roberts' "Measurability Account of Laws", *Southwest Philosophy Review*, (July 2004).
2. *Nuclear Stopping in Au+Au Collisions at $\sqrt{s_{NN}}=200\text{GeV}$* , with I G Bearden *et al*, to *Physical Review Letters*, Vol 93, No 10, (3 September 2004).
3. *Transverse-Momentum Spectra in Au+Au and d +Au Collisions at $\sqrt{s_{NN}}=200\text{GeV}$ and the Pseudorapidity Dependence of High- p_T Suppression*, with I. Arsene *et al*, *Physical Review Letters*, Vol 91, No 7, (13 August 2003).
4. *Rapidity dependence of Charged Antihadron to Hadron Ratios in Au + Au Collisions at $\sqrt{s_{NN}}=200\text{GeV}$* , with I G Bearden *et al*, to *Physical Review Letters*, Vol 90, No 10, (July 2002).
5. *Pseudorapidity distributions of charged particles from Au+Au collisions at the maximum RHIC energy, $\sqrt{s_{NN}}=200\text{GeV}$* , with I G Bearden *et al*, *Physical Review Letters* 88, 202301(2002)
6. *Empirical Investigation of Extreme Single-Particle Behavior of Nuclear Quadrupole Moments in Highly Collective A~150 Superdeformed Bands*, with S T Clark *et al*, accepted for publication in *Physical Review Letters*, Sep 2001.
7. *In-Beam Tests Of A Ring Imaging Cherenkov Detector With A Multianode Photomultiplier Readout*, with R Debye *et al*, *Nuclear Instruments and Methods in Physics Research A* 362 (1995) 253-260.
8. *Velocity Dependence of Ionization and Fragmentation of Methane Caused by Fast-Proton Impact*, with I Ben-Itzhak *et al*, *Physical Review A* 49(1994) 881-888.
9. *Direct Determination of Recoil Detection Efficiency for Coincidence Time-Of Flight Studies of Molecular Fragmentation*, with I Ben-Itzhak *et al*, *Nuclear Instruments and Methods in Physics Research B* 79 (1993) 138-141.
10. *Fragmentation of CH_4 by Fast Protons*, with I Ben-Itzhak *et al.*, *Physics Review A* 47 (1993) 3748-3757.

CONFERENCE PRESENTATIONS (Representative)

1. *Why We Ought Not Get Too Excited About Reproductive Cloning*, 3rd Annual Gateway Philosophy Conference, University of Missouri-St Louis, St Louis MO, 11-13 April 2008.
2. *Science: Good, Language: Bad, Quine: Inconsistent*, J Norris, 5th Annual Intermountain West Philosophy Conference, University of Utah, Salt Lake City UT, 27-29 March 2008.
3. *Ethical Relativism and Einstein's Theory of Special Relativity*, J Norris, at the Hawaiian International Conference on the Sciences, Waikiki HI, January 15-18, 2004.
I served as the Chair for the session on Special and General Relativity at which I presented this paper.
4. *Computers, Minds, Understanding Language, and this Kinda Fuzzy Concept Called Intentionality*, J Norris, at the 1st Annual Graduate Interdisciplinary Forum, Kansas State University, Manhattan KS, April 20, 1996.
This paper won First Prize in the category of Social Sciences and Humanities.
5. *Computers, Minds, Understanding Language, and this Kinda Fuzzy Concept Called Intentionality*, J Norris, at the 18th Annual Meeting of the New Mexico & West Texas Philosophical Society, University of New Mexico, Albuquerque NM, April 9 1996.
6. *Causal Laws, Natural Laws, and Lewis' Theory of Counterfactuals*, J Norris, at the 17th Annual Meeting of the New Mexico & West Texas Philosophical Society, University of Texas at El Paso, El Paso TX, April 12 1994.

PAID PUBLICATIONS

1. *Powers of the Pentacle*, J Norris, *Different Worlds* 47, (1987) 10 -16.

Teaching Experience:

Metropolitan State College of Denver – Denver CO 80217	
PHIL1010 – Introduction to Philosophy	(2 Sections) Fall 2008
PHIL1030 – Ethics	Fall 2008
University of Colorado at Denver - Denver CO 80217-3364	
PHIL1020 - Ethics	Fall 2008
PHYS2010 - College Physics I	Summer 2008
Ottawa University - Ottawa KS 66067	
PHY 22043 - College Physics & Lab	Fall 2007
Manhattan Area Technical College - Manhattan KS 66503	
MA 106 – Workplace Mathematics	(4 sections) Fall 2006
MA 104 – Technical Mathematics	(2 Sections) Fall 2006
Topeka High School - Topeka KS 66612	
5695 - AP Physics	Fall 2004
5690 - Physics	(2 Sections) Fall 2004
5125 - Geometry	Fall 2004
5103 - GeometryAB	Fall 2004
Bethany College - Lindsborg KS 67456-1897	
PL102 - Ethics	Spr 2005
MA101 - Intermediate Algebra	Spr 2005, (2 Sections) Fall 2004
Highland Community College - 500 Miller Dr, Wamego KS 66547, 785-456-6006	
PS203 - College Physics I	(2 Sections) Spr 2005
MAT104 - College Algebra	Fall 2001
University of Kansas - Lawrence KS 66045	
PHIL140 - Intro to Philosophy	(2 Sections) Spr 2004, (4 Recitations) Fall 2003
PHSX211 - General Physics I	(3 Labs) Spr 2003
PHSX114 - College Physics I	(3 Labs) Spr 2000
Kansas State University - Manhattan KS 66506	
PHIL130 - Intro to Moral Philosophy	Sum 2003
MATH222 - Calculus III	(2 Recitations) Fall 1998, (Recitation) Spr 1998
MATH221 - Calculus II	(Recitation) Fall 1997
MATH220 - Calculus I	(2 Recitations) Spr 1999, (Recitation) Fall 1996
MATH100 - College Algebra	(Recitation) Spr 1998, (Recitation) Fall 1996
Baker University - Baldwin City KS 66006-0065	
PC325 - General Physics III	Fall 2002
Barton County Community College - Fort Riley KS 66442-0463	
PHIL1605 - Intro to Logic	(3 Online) Oct 2000 - Aug 2001
PHIL1602 - Intro to Philosophy	(5 Online, 1 LSEC) Oct 1999 - Aug 2001
MATH1824 - Intermediate Algebra	(College) Jun - Jul 1999
MATH1821 - Basic Algebra	(College) Aug - Oct 1999
MATH1806 - Technical Math	(College) Jun - Jul 1999

Substitute Teaching:

I have been a substitute teacher Manhattan (USD383), Wamego (USD320), St Mary's/Rossville (USD 321), and Manhattan Catholic Schools.

Civic Activities:

Kansas State University
 Student Representative to the AY 1998
Mathematics Dept's Personnel Advisory Committee
 Graduate Student Council Fall 1994-Spring 1996
 President of the KSU Physics Graduate Student Association Fall 1994-Spring 1996

Metropolitan State College
 President Pro-Tempore of Student Senate Spring 1991, Fall 1992
 Rewrote Student Senate Bylaws Spring 1991
 Student Senate Fall 1990-Spring 1991, Fall 1992, Fall 1993

Volunteer Activities:

Kansas State University Fall 1996 - Fall 1999
 I designed and maintained the website for the Department of Philosophy.

Manhattan Science Fair May 1996, May 1997
 Manhattan KS
 I have twice served as a Mathematics and Physical Sciences Judge for the MSF.

Manhattan Emergency Shelter
 831 Leavenworth, Manhattan KS 66502, 785-537-3113 May 1995 - Jul 2004
 My wife was the Shelter's Executive Director for almost 10 years, and I volunteered as a night-staff person, did construction and maintenance work around the shelter, and wrote several Microsoft Excel spreadsheets and macros for the Shelter's payroll.

Metropolitan State College Fall 1991-Spring 1992
 As President of Club Natural Philosophy, I recruited and scheduled speakers for the MSCD & UCD Physics Departments' weekly Friday afternoon lecture series.

Boulder Public Library Jan-Dec 1987
 1000 Canyon Blvd, Boulder CO 80302, 303-441-3100
 I tutored an ~60 year old gentleman on a bi-weekly basis in Boulder Public Library's Adult Literacy Program Tutor.

Hobbies:

I write science fiction, including short stories and novellas, and have an outline and a few chapters of a novel; my favorite author is currently David Brin, author of the "Uplift Universe" novels. I wrote and submitted 4 spec (unsolicited) scripts to Star Trek: The Next Generation; my first script, submitted during the 2nd season, was one of the top 10 of the 110 scripts under consideration for production during the 3rd season (no spec scripts were produced during the 3rd season). I am fascinated by the possibility of intelligence in Order Cetacea, the order of marine mammals including whales, dolphins, and porpoises, and the Cephalopods, octopi, squids, cuttlefish, and chambered nautilus. While I haven't done so for several years, I have studied Ki-Aikido, Karate, and Judo. Someday, I plan to start using the worktable I spent several months building so that I could build plastic models of both real and fanciful spacecraft. On a more or less regular basis my hobbies include: making improvements to my home and brewing beer.