## Graduate Student Supervision

<table>
<thead>
<tr>
<th>Student</th>
<th>Year</th>
<th>Degree</th>
<th>Thesis Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. Safarabadi</td>
<td>2017-</td>
<td>M.Sc.</td>
<td>Search for tt resonances with ATLAS</td>
</tr>
<tr>
<td>P. Vakilipour</td>
<td>2017-</td>
<td>M.Sc.</td>
<td>Search for string states with ATLAS</td>
</tr>
<tr>
<td>A. Butt</td>
<td>2010-16</td>
<td>Ph.D.</td>
<td>Search for microscopic black holes in multi-jet final states using multiple single-jet triggers with the ATLAS detector with 8 TeV proton-proton collisions at the Large Hadron Collider</td>
</tr>
<tr>
<td>A. Saddique</td>
<td>2009-14</td>
<td>Ph.D.</td>
<td>Search for microscopic black holes in multi-jet final states with the ATLAS detector using 8 TeV proton-proton collisions at the Large Hadron Collider</td>
</tr>
<tr>
<td>A. Hossain</td>
<td>2005-09</td>
<td>Ph.D.</td>
<td>In Situ Calibration of the ATLAS Calorimeter using Semileptonic Top Quark Decays (now PDF at University of Victoria)</td>
</tr>
<tr>
<td>S.-H. Han</td>
<td>2005-08</td>
<td>M.Sc.</td>
<td>Study of Backgrounds to Black Hole Events in the ATLAS Detector</td>
</tr>
<tr>
<td>D. Wakeford</td>
<td>2003-05</td>
<td>M.Sc.</td>
<td>Observations of BL Lacertae using the Solar Tower Atmospheric Cherenkov Effect Experiment (now at Bubble Technology Industries)</td>
</tr>
<tr>
<td>K. Leung</td>
<td>2002-05</td>
<td>M.Sc.</td>
<td>Effects of Ionizing Radiation on $I_{DDQ}$ Testing (now Ph.D. student at UBC)</td>
</tr>
<tr>
<td>L. Chen</td>
<td>2000-04</td>
<td>Ph.D.</td>
<td>Radiation Tolerant Design of 0.18-micron CMOS Technology (now Assistant Professor at University of Saskatchewan)</td>
</tr>
<tr>
<td>N. Buchanan</td>
<td>1999-03</td>
<td>Ph.D.</td>
<td>Radiation Qualification of the ATLAS SCAC (now Research Scientist at Colorado State University)</td>
</tr>
<tr>
<td></td>
<td>1996-98</td>
<td>M.Sc.</td>
<td>Readout System for a LAr Calorimeter at ATLAS</td>
</tr>
<tr>
<td>C. Cojacaru</td>
<td>2001-02</td>
<td>Ph.D.</td>
<td>Radiation Tests of Electronics using an X-Ray Accelerator (transferred to Carleton University)</td>
</tr>
<tr>
<td>D. MacQueen</td>
<td>1997-00</td>
<td>M.Sc.</td>
<td>Total Ionizing Dose Effects on Xilinx FPGAs (became Ph.D. student at University of Toronto)</td>
</tr>
<tr>
<td>D. Macdonald</td>
<td>1997-99</td>
<td>M.Sc.</td>
<td>In Situ Calibration of a Hadronic Calorimeter using Top Quark Decays (took medical leave and left graduate program)</td>
</tr>
<tr>
<td>P. Kayal</td>
<td>1996-98</td>
<td>Ph.D.</td>
<td>Search for Vector Leptoquarks with OPAL (now Director of Refractions Research Inc, BC)</td>
</tr>
</tbody>
</table>
Graduate Student Supervision continued

T. Nickle 1995-97 M.Sc. Testbeam Studies of a Pipeline Readout System (transferred to Faculty of Education)
K. Klapstein 1994-95 Ph.D. Search for Leptoquarks with the OPAL Detector (transferred to University of California)
NSERC Awarded Summer Students

2018  B. Undseth  Horizon quantum wave function at the LHC
2017  D. Wandler  Quantum black hole initial-state radiation
2013  Y.T. Bai  Study of noncommutative black holes
2011  B. Jong Jung  Study of black hole results at the LHC
2010  J. Hutchinson  Study of black hole balding and radiation at the LHC
2008  K. Martell  Study of Highly-Excited String States at the LHC
2008  S. Marcu  Rare Particle Production from Black Holes at the LHC
2007  K. Martell  Microcanonical Treatment of Black Hole Decay at the LHC
2006  H. Clark  Higher-Dimensional Black Hole Event Generation
2004  T. Martin  Testing of the SCA Controller Production
2003  D. Gish  Testing of the SCA Controller Preproduction
2002  D. Gish  Monte Carlo Studies of High-Energy Gamma Rays
2001  K. Stevens  Study of Air Showers using a Simulation Program
1995  D. MacQueen  Graphical User Interface and Simulation Programming
1994  C. Tran  Study of the Top-Quark Mass Resolution with ATLAS
1994  A. Kwan  Study of the Decay $H \rightarrow \gamma\gamma$ with the ATLAS Detector
1993  A. Kwan  Monte Carlo Studies of the ATLAS EM Calorimeter

Summer Students

2017  V. Mackay  Low-scale gravity in four dimensions
2015  J. Edwards  String balls in a split fermion model
2012  S. Sevova  Quantum black hole decays to jet + photon
2012  R. Pavelich  Quantum black hole decays to dileptons
2012  K. Saraswat  Uncertainties on Quantum Black Holes in Dijets from ATLAS
2009  K. Martell  Study of Quantum Gravity at the LHC
2005  H. Clark  Noise Studies of Enclosed-Gate Transistors
2003  D. Wakeford  Search for High-Energy Gamma Rays from Markarian 421
2002  W. Syed  Testing of the SCA Controller Prototype
2000  L. Chen  Design of an IC in a radiation tolerant technology
1998  A. Murphy  Particle Fluxes in the Region of the Front-End Electronics
1997  K. Reil  A VHDL Model of a Readout Controller
1997  R. Zemp  Study of Top-Quark Mass Resolution
1996  N. Buchanan  Data Collection for a Calorimeter Readout System
1996  B. Hunter  Application of Adaptive Logic Networks to Triggering
1994  P. Kayal  Tests of a SCA for the ATLAS Calorimeter
### Graduate Student Examinations and Committees

<table>
<thead>
<tr>
<th>Name</th>
<th>Years</th>
<th>Degree</th>
<th>Department</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>P. Mekarski</td>
<td>2013-</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>S. Jabbar</td>
<td>2012-17</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>M. Malehmir</td>
<td>2012-</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>K. Chan</td>
<td>2007-</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>W.Y. Ting</td>
<td>2000-</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>C. Howard</td>
<td>2005-10</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>Y. Yao</td>
<td>2001-08</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>E. Jankowski</td>
<td>2000-05</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>A. Gaponenko</td>
<td>2000-05</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>M. Mah</td>
<td>1999-05</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>M. Belov</td>
<td>2000-04</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>R. Hossain</td>
<td>1997-01</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>E. Elhassan</td>
<td>1995-00</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>F. Al-Shamali</td>
<td>1994-98</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>R. Soluk</td>
<td>1988-98</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>M. Qurann</td>
<td>1993-96</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>A. Macpherson</td>
<td>1992-96</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>C. Bina</td>
<td>2015-17</td>
<td>M.Sc.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>R. Chouinard</td>
<td>2011-13</td>
<td>M.Sc.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>E. Bianco</td>
<td>2005-08</td>
<td>M.Sc.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>K. Chan</td>
<td>2005-07</td>
<td>M.Sc.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>A. Saha</td>
<td>2003-05</td>
<td>M.Sc.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>G. Solano</td>
<td>2003-04</td>
<td>M.Sc.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>A. Johnston</td>
<td>2001-02</td>
<td>M.Sc.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>R. MacDonald</td>
<td>1999-02</td>
<td>M.Sc.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>F. Sobratee</td>
<td>1997-98</td>
<td>M.Sc.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>R. Davis</td>
<td>1993-97</td>
<td>M.Sc.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>D. O’Neil</td>
<td>1994-96</td>
<td>M.Sc.</td>
<td>Department of Physics</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>M.W.M. Yiu</td>
<td>2003-06</td>
<td>M.Sc.</td>
<td>Dept. of Electrical Engineering</td>
<td>Univ. Alberta</td>
</tr>
<tr>
<td>L. Fu</td>
<td>2002-04</td>
<td>M.Sc.</td>
<td>Dept. of Electrical Engineering</td>
<td>Univ. Alberta</td>
</tr>
<tr>
<td>C. Giasson</td>
<td>2001-04</td>
<td>M.Sc.</td>
<td>Dept. of Electrical Engineering</td>
<td>Univ. Alberta</td>
</tr>
<tr>
<td>SA. Ung</td>
<td>2001-03</td>
<td>M.Sc.</td>
<td>Dept. of Electrical Engineering</td>
<td>Univ. Alberta</td>
</tr>
<tr>
<td>YN. Xiang</td>
<td>1999-02</td>
<td>M.Sc.</td>
<td>Dept. of Electrical Engineering</td>
<td>Univ. Alberta</td>
</tr>
<tr>
<td>H. Wang</td>
<td>1999-00</td>
<td>M.Sc.</td>
<td>Dept. of Electrical Engineering</td>
<td>Univ. Alberta</td>
</tr>
<tr>
<td>C. Hu</td>
<td>2003-05</td>
<td>M.Sc.</td>
<td>Dept. of Computer Science</td>
<td>Univ. Alberta</td>
</tr>
<tr>
<td>D. Asgeirsson</td>
<td>2011</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>UBC</td>
</tr>
<tr>
<td>R. Teuscher</td>
<td>1990-96</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>University of Toronto</td>
</tr>
<tr>
<td>C. Zhou</td>
<td>2010</td>
<td>Ph.D.</td>
<td>Department of Physics</td>
<td>McGill University</td>
</tr>
</tbody>
</table>
Graduate Student Examinations and Committees continued

L.W. Hung 1991-97  Ph.D.  Department of Physics, McGill University
K. Kordas 1991-93  M.Sc.  Department of Physics, McGill University
Teaching of Courses

Since my academic position is half funded by the TRIUMF National Laboratory, I teach a half load (three half-courses every two years). I was exempt from teaching my first term (Winter 1993). I was on sabbatical leave 1999-2000 and 2006-2007. The following is a list of courses I have taught at the University of Alberta.

Graduate-Level Courses

Topics included computer architecture, operating systems and real-time kernels, concurrent programming and parallel languages, microprocessors, digital signal processors and gate arrays, buses, crates and computer interfaces, data transport, trigger and DAQ architectures, pipelining and parallelism, run control, experiment monitoring.

Topics included Lagrangian formalism, conservation laws, gauge invariance, non-abelian gauge theories, hidden symmetries, electroweak interactions of leptons and quarks.

Methods of particle detection. This third of the course dealt with the topics of passage of particles through matter and sampling calorimeters. I taught 1/3 of course.

Topics included fundamentals of classical and quantum statistical mechanics, with selected applications.

PHYS 524: Classical Electrodynamics (half course, 2018),
Topics included wave guides, radiating systems; special relativity, dynamics of relativistic particles and electromagnetic fields; radiation by moving charges; multiple fields. Additional special topics will be discussed.

Topics included Klein-Gordon equation, Dirac equation, propagator theory, and quantum electrodynamics.
Undergraduate-Level Courses

ENPH 131: Engineering Mechanics (half course).
Topics included kinematics and dynamics of particles; gravitation; work and energy; linear momentum; angular momentum; systems of particles; introduction to dynamics of rigid bodies This course is taken only by Engineering students.

2018: 140 students.
2017: 100 students (convener 6 sections, 629 students).
2016: 138 students.

PHYS 499: Special Projects (half course),

2018: Large hidden sector and Kaluza-Klein model’s missing transverse momentum and proton-proton cross-section analysis for the graviton search at LHC (Jaykumar Petel).
2017: Parton distribution study at high x (Aidan Macpherson).
2016: Limits on Quantum Black Holes in ATLAS dijet events (Michael Eigie).
2015: Investigation of diboson and mono-X quantum black hole decay states at the Large Hadron Collider (Dylan Podkowka).
2015: Limits on Quantum Black Hole Production at the Large Hadron Collider (Zihui Wang).
2013: Commissioning and Characterisation of the University of Alberta X-ray accelerator facility (Bryson Ewanchuk).
2009: Democratic Brane Worlds (1 student).
2004: Detection of X-rays using Photodiodes (1 student).
1995: Study of the Decay $H \rightarrow \gamma\gamma$ with the ATLAS Detector (1 student).

PHYS 493: Instrumentation B (half course)

1997: Computer-aided Design of a Multiple FIFO System (1 student).
Undergraduate-Level Courses Continued

PHYS 485: Introductory Particle Physics (half course),
Topics included particles and forces, relativistic kinematics, symmetries and conservation laws, Dirac equation and electrodynamics of leptons and quarks, quantum chromodynamics and the strong interaction, weak interactions and electroweak unification.

2010: 10 students.
2009: 11 students.
2008: 5 students.

PHYS 397: Projects in Experimental Physics (half laboratory course),
http://cpp.phys.ualberta.ca/~gingrich/phys397/phys397.html
This is a senior laboratory course offering experiments in optics, electromagnetism, modern physics and nuclear physics. It is a free-form laboratory in which students are required to innovate their own experiments based on existing equipment already in place.

2001: 28 students.

PHYS 395: Electronics (half course with laboratory),
Topics included review of DC and AC circuits, filters, diodes and transistor circuits, operational amplifiers, digital circuits, data acquisition, and computers.
Wrote over 160 pages of lecture notes with over 100 diagrams, including examples and problems (desktop published). See section Other Teaching Related Activities.

1997: 11 students.
1996: 20 students.
1995: 30 students.
1994: 22 students.

PHYS 372 Quantum Mechanics A (half course).
Topics included origins of quantum mechanics, wave functions, Schrödinger equation and its application to one dimensional systems, postulates and physical interpretation of quantum mechanics, orbital angular momentum, central potentials and three-dimensional systems.

2006: 49 students.
Undergraduate-Level Courses Continued

PHYS 234 Introductory Computational Physics (half course).
http://www.ualberta.ca/~gingrich/phys234/phys234.html
Algorithms for scientific data analysis, techniques for solving physics problems with selected topics from mechanics, waves, geometrical optics, electricity and magnetism, statistical physics, decay processes, quantum physics.

2015: 66 students.

PHYS 200 Relativistic Aspects of Modern Physics (half course).
Topics included limitations of classical physics, Einstein’s special theory, length contraction, time dilation, twin paradox, equivalence of mass and energy, relativistic mass and momentum, the general theory of relativity including deflection of light, black holes, models of the universe, and curvature of space.

2005: 33 students.

PHYS 124 Particles and Waves (half course).
Algebra-based course for students in life, environmental, and medical sciences. It guides the student through two distinct types of motion: motion of matter (particles) and wave motion. Vectors, forces, bodies in equilibrium, elasticity and fracture, review of kinematics and basic dynamics, conservation of momentum and energy, circular motion, vibrations, waves in matter, wave optics, sound, black body radiation, photons, de Broglie waves, models of the atom. Examples relevant in environmental, life, and medical sciences will be emphasised.

2003: 104 students.
2002: 99 students.

PHYS 105: Introduction General Physics I (mechanics) (half course).
Topics included kinematics and dynamics in two dimensions, work and energy, momentum, rotational kinematics and dynamics, and simple harmonic motion. This course was primarily taken by students wishing to enter Medical School.

1994: 100 students.
1993: 74 students.
Graduate Student Supervision (1989-92)

Supervising graduate students at the University of Oxford was not a requirement of my Research Associate position but was fully recognised by the University. By the nature of my research – involving large collaborations – I directly guided the research of several students at any one time. It was un-typical for a Research Associate to supervise more than one student. The following two students were officially under my supervision.

J. Butterworth 1989-92 D.Phil., M.Sc. Now Professor of Physics at University College London.


As my student, J. Butterworth published a two-author paper in Nuclear Physics B. and won second prize in a National Science Writing contest.

Undergraduate Teaching (1988-92)

My position as College Lecturer in Physics at Hertford College (University of Oxford) was in addition to my position as a Postdoctoral Research Associate at the University of Oxford.

Undergraduate teaching at the University of Oxford runs at three levels and the individual Colleges are responsible for the teaching of their own students. Hertford College typically admits ten physics students each year. I was responsible for teaching certain subject areas at all three levels each year. Each term (three per year) I was responsible for a different subject area and taught about ten students. I ran the teaching as problem solving sessions in which problems were assigned and then discussed the following week. I typically tutored students in pairs matched in ability and hence spent approximately five hours per week with students.

In each term I supplied completely written out problem sets. Problems were derived from previous exams except for the second year Electromagnetism in which I derived problems from the text book by Lorrain and Corson. Each term I prepared tests and was responsible for marking these and the problem sets. I also supplied a reading lists in Electromagnetism, Nuclear and Particle Physics, and course outlines in each course I taught.

Undergraduate students at the University of Oxford are evaluated totally on their results of University-wide standard examinations. In addition, each term I wrote an evaluation of each student for the College. Of the 47 students I taught over a four years period, all graduated with a degree in physics. Two students were asked to repeat the final year.

The following is a list of courses I taught at Hertford College Oxford.
Electromagnetism: 3’rd year
Topics included electrostatic and magnetic fields; Maxwell equation; plane waves in infinite media; reflection and refraction; transmission lines and radiating systems; scattering, dispersion and absorption.

Nuclear and Particle Physics: 3’rd year
Topics included nuclear physics definitions and nuclear models; nuclear reactions and decays; classification of interactions and particles; conservation laws and quark model.

Electromagnetism: 2’nd year
Topics included plane waves in infinite media; reflection and refraction; radiating systems, transmission lines, scattering, dispersion and absorption.

Nuclear and Particle Physics: 2’nd year
Topics included definitions and nuclear models; nuclear decays: gamma, beta, alpha; nuclear reactions: cross-section, scattering, fusion, fission; particle physics: classification of interactions and particles, and conservation laws.

Optics: 2’nd year
Topics included Huygen and Fermat principles; beats, group velocity, and Fourier transforms; polarization; interference, Michelson and Fabry-Perot spectrometers; diffraction.

Mathematics: 1’st year
Topics included linear second order differential equations; Laplace, Schrödinger, time-dependent diffusion, and wave equations.

TEACHING AT THE UNIVERSITIES OF TORONTO AND WATERLOO

Teaching was optional during my undergraduate and graduate degrees since I had adequate scholarships to support myself. There was a two year gap in my teaching at the University of Toronto during which I researched abroad.

My duties at the Universities of Waterloo and Toronto involved marking approximately 30 first year physics assignments per week. In addition, one hour per week was spent in tutorials at the University of Toronto. The courses I tutored were primarily taken by students planning on entering Medical School. During my later years at the Universities of Waterloo and Toronto I spent several hours per week in the Physics Drop-in Help Centres. These Help Centres provided a form for any undergraduate student to drop by and ask questions. First year non-physics majors seeking help on problem assignments made the most use of the service. The following is a list of my teaching experience at the Universities of Toronto and Waterloo.

<table>
<thead>
<tr>
<th>University of Toronto</th>
<th>1987</th>
<th>drop-in tutoring centre</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1982-84</td>
<td>1’st year physics</td>
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</table>

<table>
<thead>
<tr>
<th>University of Waterloo</th>
<th>1980-82</th>
<th>drop-in tutoring centre</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1978-80</td>
<td>1’st year physics</td>
</tr>
</tbody>
</table>
OTHER TEACHING RELATED ACTIVITIES


• Desktop published lecture notes for PHYS395 - Electronics, http://cpp.phys.ualberta.ca/~gingrich/phys395/phys395.html. A few places at which the notes are being used are
  – University of Alberta - Physics,
  – University of Toronto - Physics,
  – Washington College - Physics,
  – University of Arizona - Electrical and Computer Engineering,
  – James Madison University - Harrisonburg, Virginia,
  – Rochester Institute of Technology - Dept. of Information Technology,
  – Rensselaer Polytechnic Institute - New York,
  – Mu’tah University - Jordan.

Unsolicited comments on the notes that I have received from students and teachers can be view at http://cpp.phys.ualberta.ca/~gingrich/phys395/comments.html


• Teaching seminars attended:
  – Orientation for New Professors (two days).
  – Graduate Student Supervision

• Edmonton Science Fair judge.

• Volunteer for the Science and Technology Hotline (Edmonton).

• Canadian Undergraduate Physics Conference judge.
Dear Prof. Gingrich:

Here is Jueyi emailing from the University of Northern British Columbia.

I am teaching "Fundamentals of Environmental Engineering" this semester. I have to give some basic information regarding "electronics for instrumentation" (only 1 hour) which is not my field.

I found your lecture notes (PHYS395) are excellent material for our students. May I use some part of your notes? I will cite the source (such as your name, webpage address).

Thanks so much in advance.

Jueyi

From: Duamel Vellon <duavel@yahoo.com>
Subject: Physics - Engineering

Hi. I just wanted to say thank you for the site that you have on the web, the Physics notes for electronics. I have looked at every single page and am in awe. I have a Electrical Engineering degree and I studied everything on there. I just wanted to commend you on your notes. Terrific!

Duamel Vellon
Orlando, FL

Subject: filter notes (PHYS395)
From: "Kuba Ober" <kuba@mareimbrium.org>

Dear Sir,

Your class notes about filter design are *the* most easy to understand notes on that subject that I’ve ever seen. It may indicate my overall ignorance (I’m the kind of guy who designs filters in spice and tweaks values until the transfer function looks as required), or simply that you have that ‘something’ that allows some people to be excellent teachers.
Keep up the good work!

Cheers, Kuba Ober

PS. I’m a graduate mechanical engineering student. I did my unergrad in physics. My long-time passion has been instrumentation electronics and software, especially for biomeasurements.

PS2. A note about your PDF file: your TeX system is using bitmapped fonts in the generated .ps (and subsequently, .pdf files). If you’re on a unix box, create a file named '.dvipsrc' in your home directory, and put following two lines into it:

p+ psfonts.cms
p+ psfonts.amz

That should make the .pdf files look better in the Acrobat.

========================================================================

From: Michael Lewis [cmosmike@hotmail.com]
Sent: Thursday, September 06, 2001 9:53 PM
To: gingrich@ualberta.ca
Subject: Phys 395 notes

I run a web site that offers information on CMOS layout design. For your reference, the URL is http://sites.netscape.net/cmoslayoutdesign

Anyhow, I discovered your Phys 395 lecture notes while doing a Yahoo search. Your site is wonderful, with an amazing amount of information about electronics. I would like to offer a link to your notes from my web site, would this be ok?

Thank you
Michael Lewis

========================================================================

From: M. Hannout [mhanout@cisunix.unh.edu]
Sent: Saturday, August 04, 2001 3:52 AM
To: gingrich@ualberta.ca
Subject: Electronics Web notes.
Dear Prof. Gingrich

My name is Moataz Hannout. I am a teaching assistant at the University of New Hampshire at Durham. I am going to teach the electronics lab to accompany a senior class on physical electronics in the fall of 2001. The course will be taught by Prof. John Calarco.

We were wondering if you can give us your recommendation about book that will contain most of the materials described in your web page "Not including materials after Data Acquisition and Process Controls". Of course the art of Electronics is not an option for students who are new to the field.

We also wonder whether we can direct students to your web page for more information ?. Do you publish these papers as a book ?.

Finally, I’d like to congratulate you for excellent course structure and impressive wealth of knowledge to the new comer and professionals as well.

Best regards and wishes.

M. Hannout.

========================================================================
Date: Fri, 20 Feb 1998 23:59:08 CST6CDT
From: Gopinath Shanmugam <gopi@Euler.Math.MsState.Edu>
Reply-To: gs2@ra.msstate.edu
To: gingrich@phys.ualberta.ca
Subject: Hello.

Dear sir, I am a student at Mississippi State University. I stumbled onto your page when I was doing a search on ‘Slew Rate.’ I was so impressed by what I saw that I had to express my appreciation for innovators like you. You must have put in a lot of work to get all those notes published. I really think it was well worth the effort. I’m sure your students feel the same way too.
A job well done and good luck on future endeavours.

Gopi...

========================================================================
Hello!

My Name is Klaus - Hendrik Lorenz, and I'm a Student of Physics and Musicology. In the last days of September I managed the second of my last 4 Tests in studies called "Diploma tests" in the subject of: "Analog - to - digital conversion" and "Digital - to - analog conversion". In order to exercise and to understand the stuff, I referred in my learning to Your articles in the web - and: I managed the test with mark 1.7 (in a scale from 1 to 5, 1 is best, 5 is not managed). So therefore many friendly thanks for Your articles: they helped me a lot in understanding the matter! It is quite amazing both to find complete lectures about electronics etc. and about more narrow -looking artikles about some special terms and facts in the web. So - have a nice time and many friendly greetings

... from good old Germany

Dear Prof. Gingrich

I'll be teaching an analog electronics course to physics majors in the spring. It has been 8 years since I taught a similar course. In scanning the web I came across your course notes. I would like to provide a local copy for my students and would like your permission to copy them over to my site (maintaining of course the identification of you as the author.)

Do you use a text or just your notes. I'm not terribly happy with the various texts that have been suggested by my colleagues. In particular, while "The Art of Electronics" is a wonderful book, I can't imagine using it as a text. Please disagree with that if you do, in fact, use AoE.
Sincerely

Dorn Peterson

From ell@it.rit.edu Wed Mar  4 17:09:44 1998
Date: Mon, 02 Mar 1998 13:21:36 -0500
From: Elizabeth Lane Lawley <ell@it.rit.edu>
To: gingrich@phys.ualberta.ca
Subject: Your PHYS 395 Lecture Notes

Professor Gingrich-

I stumbled upon your lecture notes while doing course prep for a basic computer concepts and hardware class that I’m teaching for the first time this quarter. The first two weeks of the course deal with digital logic, numbering methods, boolean algebra, etc, and your lecture notes are exactly the kind of thing I was looking for.

Would it be alright if I pointed my students (it’s a distance learning class) towards your site for that material? I realize that since it’s on the web I could theoretically do that without asking, but that seems rude. :-)

best,
Liz

From connor@hibp6.ecse.rpi.edu Wed Mar  4 19:07:21 1998
Date: Fri, 09 Jan 1998 09:56:13 -0500
From: Ken Connor <connor@hibp6.ecse.rpi.edu>
To: gingrich@phys.ualberta.ca
Cc: connor@hibp6.ecse.rpi.edu
Subject: a favor

Douglas

I have been trying to find an appropriate text for my course Electronics and Instrumentation and came across your online classnotes. They would be almost perfect for the environment in which we deliver this course. I would therefore like to have my students use them, if possible.
Since you have made them freely available on the web, you may be wondering why I would even ask. I have several reasons.

1 - My mother brought me up right.

2 - I am involved in several activities in which we are developing educational materials to be delivered via the web. Two such programs here at Rensselaer that you might find informative are

Project Links, found at http://links.math.rpi.edu/index.html

Academy of Electronic Media, found at http://www.academy.rpi.edu/index.html

The former is an NSF supported project is a cooperative effort between mathematicians, engineers and scientists to develop educational materials that link mathematical topics with applications in engineering and science. The primary product of this effort is a set of interactive, web-based learning modules.

The latter is dedicated to the development and use of engaging interactive electronic media which simultaneously stimulate multiple senses will revolutionize the way in which knowledge is garnered and technology is utilized at all levels - from young child to life-long learner.

One of the key issues that comes up in this kind of activity is compensation for developers. There is an EDUCOM project called Instructional Management Systems at http://www.imsproject.org/ that you should look at.

In any case, I need to know if my students can use your notes, since my class starts next week. We can discuss this further then. I am open to any kind of working relationship you might be interested in.

My class webpage is at:

The first thing I will have to do next week, is to send you some info on what we mean by studio classrooms. This is an exciting new way to deliver technical education that combines lectures, recitations, problem sessions, and labs all in the same place.
Good Evening Sir or should i say Good morning... uhmmm. whatever.... i would just like to thank you for providing an online lecture notes for Physics. its really helping me a lot most especially with my electronics subject. By the way, im an ECE student from Mapua Institute of Technology here in Manila, Philippines. In behalf of my classmates using your online lecture notes as our reference, we would like to show our gratitude by including your name as well as your website’s address in every report reference we have made. We hope that wouldnt be a big mess to you. More power to your lecture notes posted in the internet as well as your career as a professor. We hope that you wont let the site go down for it really helped us. We are still using it as our reference coz it compromises all our electronics subjects up to our fifth year.

Once again, thank you.

Respectfully yours,

Adrian San Juan
Dr. Gingrich - I am a student at the University of Arizona in Electrical and Computer Engineering. I find your Phys 395 notes to be an extremely useful supplementary resource in my microelectronics courses. We appreciate your effort down here in Arizona. Thanks, Jim Engle

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Date: Fri, 19 Jun 1998 17:58:40 -0300
From: Tom MacIntyre <tmacinty@cbnet.ns.ca>
Reply-To: tmacinty@cbnet.ns.ca
X-Mailer: Mozilla 4.05 [en] (Win95; I)
MIME-Version: 1.0
To: gingrich@relay.Phys.UAlberta.CA
Subject: Electronics course
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Status: RO
X-Status:

Excellent!! I completed a 2-year diploma in Electronics Engineering Technology here in Cape Breton, Nova Scotia., 16 years ago, and this is an excellent refresher/updater (not to mention that I love reading technical literature!!). Thanks for a job well done.

Tom MacIntyre

========================================================================

Date: Sat, 25 Jul 1998 12:31:35 +0100
To: gingrich@Phys.UAlberta.CA
From: Larry and Andrea Gagnon <gagnon@gagnon.u-net.com>
Subject: your electronics tutorial
Status: RO
X-Status: A

Hello: I have just been browsing your electronics tutorial on the internet. It is a very thorough piece of work and one of the better ones around. I am doing some self study in electronics and would love to be able to get through your entire series of notes. However, because they are so involved (with many layers of links) it gets quite expensive for me because here in
the UK local phone calls are charged quite heavily by the minute and long
term study over the Web gets VERY expensive.

I don’t suppose your notes are available as a complete download from an FTP
site or something to that effect??

Your response would be greatly appreciated.
Thanks....Larry Gagnon, Wales, U.K.
========================================================================
Date: 14 Aug 98 12:25:49 EDT
From: Satinder.Sidhu@washcoll.edu (Satinder Sidhu)
Subject: Electronics course
To: gingrich@Phys.UAlberta.CA
Status: R0
X-Status: A

Dear Colleague,

Greetings from South of the Border and two time zones to the east!

A recent WWW search on some electronics textbook author’s name led me
to your PHY395 web pages.

My compliments to you on a _very_ well-designed course. Its structure
and organisation is the best I have seen for a course at this
level. My opinion is possibly coloured by the fact I follow
essentially the same sequence and order of topics in a one-semester
course here.

I have been using Diefenderfer & Holton (Principles of Electronics
Instrumentation) for the past couple of years before which I had used
W. L. Faissler’s "An Introduction to Modern Electronics" for three
years or so. I am again considering changing the book for the semester
beginning at the end of this month, being dissatisfied with many
things about it, including the hefty price (about US$85), a fault that
it shares with nearly every book on the market.

I noticed that you do not require any textbook but have "lecture notes
available for purchase." Would you consider making them available for
purchase by students at another institution? How large is the set and
what price does it sell at? Are the notes essentially the same as
appearing on your web site?

An early reply will be greatly appreciated as would be any other
suggestions. I have strung our bookstore along so far but they are breathing down my neck now!

Hoping to hear soon from you.

Thanks.

SSS

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Dr. Satinder S. Sidhu
Associate Professor and Chairman
Department of Physics
Washington College
300 Washington Avenue
Chestertown, MD 21620-1197

Telephone: 410-778-7255 (Office)
FAX: 410-778-7275

Necessary and sufficient eMail address:

Satinder.Sidhu@WashColl.EDU

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To: gingrich@Phys.UAlberta.CA
Subject: Thank you
X-Priority: 3 (Normal)
Content-Type: text/plain; charset=iso-8859-1
Content-Transfer-Encoding: 8bit
Status: RO
X-Status:

I am a student of Chemistry at the Universidad de Los Andes, Venezuela. I am writing to you because I want to thank you: your web sites have helped me a lot with my physics laboratory. I have found in them information that is not in my books, and it is given exactly in the way I need it. So, when I need to understand something about my laboratory course all I have to do is refer to your notes.

Thank you again.

Maricarmen Grisola.

========================================================================

From Patissaved@aol.com Thu Jul 29 22:20 MDT 1999

thank you.
i have been longing to know how micro computers worked. 
i have worked with windows, dos, and currently using unix and being taught about sql 
i have been enlightened by your webpage 

thank you.... it is as if a light went on inside of my head. 

thank you 
Patricia

========================================================================
From: Kay O'Neal [anona@accessatc.net]  
Sent: February 24, 2000 11:31 PM 
To: gingrich@ualberta.ca  
Subject: lecture notes 

Hello, 

Your lecture notes are very impressive. I am sorry that I am unable to attend your classes (I live in Georgia), but your notes helped me prepare for a difficult exam that BellSouth requires some prospective job applicants to pass. I will be tested next week on Basic Digital Electronics and your notes have improved my chances of success. Thank you. 

Sincerely, 

Kay O'Neal

========================================================================

From: Larry Ciak [larryc@electronics-warfare.com]  
Sent: Sunday, June 04, 2000 4:42 PM  
To: gingrich@ualberta.ca  
Subject: Thank You  

Dr. Gingrich, 

While searching the web for information on passive filters, I came upon your site for Physics 395. 

It contains a wealth of information which I downloaded. 

I am a senior at Weber State University, in Salt Lake City, Utah. ( also 54 years old :) ) 

I wish to thank you for the information and details contained in the page. 

23
My main area of interest is in the suppression of harmonics and magnetics. My mentor is Dr. Edward G. Price whose credits include the hand held calculator and the wireless microphone.

I consider myself very fortunate for his guidance and persons such as yourself who present their information to the public.

Thank you again

Larry W. Ciak

========================================================================

From: Tyson Sommer [t-y-s-t-y-x@flash.net]
Sent: Monday, August 27, 1956 10:58 AM
To: gingrich@ualberta.ca
Subject: PHYS395 notes

In regards to the thoroughness and obvious care and time you spent putting all that information together and making it readily available essentially free-of-charge not just for your students, but also for Joe Randomguys like myself:

you rule. may karmic confetti rain down upon you and stuff for a while.

seriously, thank you!

tyson

========================================================================

To: gingrich@ualberta.ca
Subject: umm your PDF seems to be broken.
Date: Fri, 03 Nov 2000 11:37:55 -0500
From: Matt Goward <mgoward@eviloverlord.org>

Your PHYS 395 class notes pdf seem to be broken. Is this intentional? I truly hope not as it is one of the most useful refrences for I have found for teaching my self electronics, and I have lost my local copy.

Matt Goward

========================================================================

From: Brian Hoskins <BrianJHoskins@usermail.com>
Subject: Your Physics Website All headers

Hello,
First, to introduce myself, my name’s Brian Hoskins and I’m a member of the Electronics101 group on the internet. One of our members has been asking a lot of basic Electronics questions recently and while doing some research I happened upon your site. Although a Physics site, it does teach Electronics from the Basics up to quite a complex level, and I have posted him the link so that he may visit your site and hopefully learn from it.

I just wanted to confirm that you don’t mind if I give others the link to your site, as I was thinking of posting it to my old A-Level Physics teacher. I’m sure his students would find it very useful as an easily accessible resource of Physics information, so as long as you have no objections I’ll post him the link to your site later.

I’m sure it’s obvious that having visited your site and browsed through I am very impressed!

Kind regards
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Subject: Online Electronics Notes

Doug,
I have been very impressed with your online notes. I am considering using them as a supplementary text in my introductory electronics course. If I have the students purchase this as a course pack in the bookstore, would you desire a royalty payment, and if so, how much?

Thanks for all your work
Tom
========================================================================

From: Joe Reeder [jreeder1@airmail.net]
Subject: Your Operational Amplifiers Page

Dear Professor Gingrich,

This is just a note to let you know that I have included a reference to your Operational Amplifiers page at my Embedded Systems Tutorial site: http://www.learn-c.com

It is a free tutorial that teaches embedded systems programming by taking a person from the basics to actually producing output to and getting input from the real world using the C programming language.
Joe Reeder