# TEACHING DOSSIER

# TEACHING AT THE UNIVERSITY OF ALBERTA

# Graduate Student Supervision

S. Safarabadi	2017-	M.Sc.	Search for tt resonances with ATLAS
P. Vakilipour	2017-	M.Sc.	Search for string states with ATLAS
A. Butt	2010-16	Ph.D.	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
A. Saddique	2009-14	Ph.D.	Search for microscopic black holes in multijet final states
			with the ATLAS detector using 8 TeV proton-proton
			collisions at the Large Hadron Collider
K. Emelideme	2011-13	M.Sc.	Study of Microscopic Black Holes at the LHC using
			Noncommutative Inspired Geometry
A. Hossain	2005-09	Ph.D.	In Situ Calibration of the ATLAS Calorimeter
			using Semileptonic Top Quark Decays
			(now PDF at University of Victoria)
SH. Han	2005-08	M.Sc.	Study of Backgrounds to Black Hole Events
			in the ATLAS Detector
D. Wakeford	2003-05	M.Sc.	Observations of BL Lacertae using the Solar
			Tower Atmospheric Cherenkov Effect Experiment
			(now at Bubble Technology Industries)
K. Leung	2002 - 05	M.Sc.	Effects of Ionizing Radiation on $I_{DDQ}$ Testing
			(now Ph.D. student at UBC)
L. Chen	2000-04	Ph.D.	Radiation Tolerant Design of 0.18-micron CMOS
			Technology (now Assistant Professor at
			University of Saskatchewan)
N. Buchanan	1999-03	Ph.D.	Radiation Qualification of the ATLAS SCAC
			(now Research Scientist at Colorado State University)
	1996-98	M.Sc.	Readout System for a LAr Calorimeter at ATLAS
C. Cojacaru	2001-02	Ph.D.	Radiation Tests of Electronics using an
			X-Ray Accelerator
			(transferred to Carleton University)
D. MacQueen	1997-00	M.Sc.	Total Ionizing Dose Effects on Xilinx FPGAs
			(became Ph.D. student at University of Toronto)
D. Macdonald	1997-99	M.Sc.	In Situ Calibration of a Hadronic Calorimeter
			using Top Quark Decays
			(took medical leave and left graduate program)
P. Kayal	1996-98	Ph.D.	Search for Vector Leptoquarks with OPAL
			(now Director of Refractions Research Inc, BC)
	1994-96	M.Sc.	Tests of an SCA for the ATLAS Calorimeter

# 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

(transfered 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

P. Mekarski	2013-	Ph.D.	Department of Dhygieg University of Alberta
S. Jabbar	2013-	Ph.D.	Department of Physics, University of Alberta Department of Physics, University of Alberta
M. Malehmir	2012-17	Ph.D.	Department of Physics, University of Alberta
K. Chan	2012-	Ph.D.	Department of Physics, University of Alberta
W.Y. Ting	2007-	Ph.D.	Department of Physics, University of Alberta
C. Howard		Ph.D.	· · · · · · · · · · · · · · · · · · ·
	2005-10	Ph.D.	Department of Physics, University of Alberta
Y. Yao E. Jankowski	2001-08 2000-05		Department of Physics, University of Alberta
		Ph.D.	Department of Physics, University of Alberta
A. Gaponenko	2000-05	Ph.D.	Department of Physics, University of Alberta
M. Mah	1999-05	Ph.D.	Department of Physics, University of Alberta
M. Belov	2000-04	Ph.D.	Department of Physics, University of Alberta
R. Hossain	1997-01	Ph.D.	Department of Physics, University of Alberta
E. Elhassan	1995-00	Ph.D.	Department of Physics, University of Alberta
F. Al-Shamali	1994-98	Ph.D.	Department of Physics, University of Alberta
R. Soluk	1988-98	Ph.D.	Department of Physics, University of Alberta
M. Qurann	1993-96	Ph.D.	Department of Physics, University of Alberta
A. Macpherson	1992-96	Ph.D.	Department of Physics, University of Alberta
C. Bina	2015-17	M.Sc.	Department of Physics, University of Alberta
R. Chouinard	2011-13	M.Sc.	Department of Physics, University of Alberta
E. Bianco	2005-08	M.Sc.	Department of Physics, University of Alberta
K. Chan	2005-07	M.Sc.	Department of Physics, University of Alberta
A. Saha	2003-05	M.Sc.	Department of Physics, University of Alberta
G. Solano	2003-04	M.Sc.	Department of Physics, University of Alberta
A. Johonston	2001-02	M.Sc.	Department of Physics, University of Alberta
R. MacDonald	1999-02	M.Sc.	Department of Physics, University of Alberta
F. Sobratee	1997-98	M.Sc.	Department of Physics, University of Alberta
R. Davis	1993-97	M.Sc.	Department of Physics, University of Alberta
D. O'Neil	1994-96	M.Sc.	Department of Physics, University of Alberta
R. Paiam	1994-97	Ph.D.	Dept. of Electrical Engineering, Univ. Alberta
M.W.M. Yiu	2003-06	M.Sc.	Dept. of Electrical Engineering, Univ. Alberta
L. Fu	2002-04	M.Sc.	Dept. of Electrical Engineering, Univ. Alberta
C. Giasson	2001-04	M.Sc.	Dept. of Electrical Engineering, Univ. Alberta
SA. Ung	2001-03	M.Sc.	Dept. of Electrical Engineering, Univ. Alberta
YN. Xiang	1999-02	M.Sc.	Dept. of Electrical Engineering, Univ. Alberta
H. Wang	1999-00	M.Sc.	Dept. of Electrical Engineering, Univ. Alberta
Y. Chan	1995-97	M.Sc.	Dept. of Electrical Engineering, Univ. Alberta
T. Seniuk	1992-94	M.Sc.	Dept. of Electrical Engineering, Univ. Alberta
C. Hu	2003-05	M.Sc.	Dept. of Computer Science, Univ. Alberta
D. Asgeirsson	2011	Ph.D.	Department of Physics, UBC
R. Teuscher	1990-96	Ph.D.	Department of Physics, University of Toronto
C. Zhou	2010	Ph.D.	Department of Physics, McGill University
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# Graduate Student Examinations and Committees continued

LW. 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**

PHYS 673: Real-Time Computing and Experiment Data Acquisition (half course, 1996),

http://cpp.phys.ualberta.ca/~gingrich/phys673/phys673.html

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.

PHYS 590: Particle Physics II: Gauge Theories (half course, 1997,2009),

http://cpp.phys.ualberta.ca/~gingrich/phys590/phys590.html

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

PHYS 574: Experimental Methods in Physics (half course, 2012),

http://cpp.phys.ualberta.ca/~gingrich/phys574/phys574.html

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

PHYS 530: Statistical Mechanics (half course, 2011-13),

http://cpp.phys.ualberta.ca/~gingrich/phys530/phys530.html

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.

PHYS 512: Advance Quantum Mechanics II (half course, 2001,2003-05),

http://cpp.phys.ualberta.ca/~gingrich/phys512/phys512.html

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

Published textbook "Practical Quantum Electrodynamics", Taylor & Francis CRC Press, 2006, ISBN 1584885424, 360 pages.

#### **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),

http://cpp.phys.ualberta.ca/~gingrich/phys499/phys499.html

2018: Large hidden sector and Kaluza-Klein model's missing transverse momentum and proton-ptoton cross-section analysis for the graviton search at LHC (Jaykummar 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).

1998: Testing Parallel Algorithms on Digital Signal Processors (1 student).

1997: Testing Parallel Algorithms on Digital Signal Processors (1 student).

1996: Hoffman Minimum Redundancy Coding Algorithms in OCCAM (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).

1995: Computer-aided Design of a Digital Multiplexer (1 student).

## **Undergraduate-Level Courses Continued**

PHYS 485: Introductory Particle Physics (half course),

http://cpp.phys.ualberta.ca/~gingrich/phys485/phys485.html

Topics included particles and forces, relativistic kinematics, symmetries and conservations 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),

http://cpp.phys.ualberta.ca/~gingrich/phys395/phys395.html

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*.

1998: 9 students. 1997: 11 students. 1996: 20 students. 1995: 30 students. 1994: 22 students.

PHYS 372 Quantum Mechanics A (half course).

http://cpp.phys.ualberta.ca/~gingrich/phys372/phys372.html

Topics included origins of quantum mechanics, wave functions, Schrodinger 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, gometrial optics, electricity and magnetism, statistical physics, decay processes, quantum physics.

2015: 66 students.

PHYS 200 Relativistic Aspects of Modern Physics (half course).

http://cpp.phys.ualberta.ca/~gingrich/phys200/phys200.html

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).

http://cpp.phys.ualberta.ca/~gingrich/phys124/phys124.html

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.

#### TEACHING AT THE UNIVERSITY OF OXFORD

### 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 where officially under my supervision.

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

A. Byrne 1991-94 D.Phil., M.Sc. Now employed by Oxford Magnets, UK.

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.

University of Tor	ronto 1987	drop-in tutoring c	ontro
University of Tor	1011110 1961	(1100)=111 1:111:011119 (	еньте

1982-84 1'st year physics

University of Waterloo 1980-82 drop-in tutoring centre

1978-80 1'st year physics

#### OTHER TEACHING RELATED ACTIVITIES

- Published textbook "Practical Quantum Electrodynamics", Taylor & Francis CRC Press, 2006, ISBN 1584885424, 360 pages.
- Published "Dictionary of Pure and Applied Physics", Edited by Dipak Basu, CRC Press, 2001, ISBN 0-8493-2890-X.
- 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

- Desktop publishable: The UNIX Shell Guide, written with N. Buchanan, not finished, http://cpp.phys.ualberta.ca/~gingrich/research/shells/shells.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.

#### Unsolicited Comments on PHYS395 Lecture Notes

Return-Path: <sui@unbc.ca>

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 lecutre 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

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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

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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.

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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 refernece, 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

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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.

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From gopi@Euler.Math.MsState.Edu Wed Mar 4 17:10:19 1998

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.

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Go	рı		

From lorenz@rz.uni-duesseldorf.de Wed Mar 4 17:10:33 1998

Date: Fri, 7 Nov 1997 11:09:12 +0100 From: lorenz@rz.uni-duesseldorf.de

To: gingrich@phys.ualberta.ca

Subject: Thanks for A/D-D/A-articles

#### 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

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From petersdw@jmu.edu Wed Mar 4 17:11:05 1998

Date: Tue, 14 Oct 1997 11:28:13 -0400

From: "Dorn W. Petersoon" <petersdw@jmu.edu>

To: gingrich@phys.ualberta.ca Subject: Electronics Class notes

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 colleages. 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

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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

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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: http://hibp7.ecse.rpi.edu/~connor/education/ElecInst.html

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.

#### Ken Connor

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From: "Adrian San Juan" <aids\_@hotmail.com>

To: <gingrich@phys.ualberta.ca>

Subject: Thank You .....

Date: Thu, 16 Apr 1998 19:57:28 +0800

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

X-Priority: 3

X-MSMail-Priority: Normal

X-Mailer: Microsoft Outlook Express 4.72.2106.4

X-MimeOLE: Produced By Microsoft MimeOLE V4.72.2106.4

Status: RO X-Status: A

Sir Douglas Gingrich

Good Evening Sir or should i say Good morning... uhmmmm. 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 Techonology 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

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Date: Wed, 29 Apr 98 11:30:05 -0600

Message-Id: <9804291730.AA25408@jever.phys.ualberta.ca>

To: gingrich@phys.ualberta.ca From: engle@ece.arizona.edu

Subject: jever web server comment

Status: RO
X-Status:

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

\_\_\_\_\_\_

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

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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.

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Date: 14 Aug 98 12:25:49 EDT

From: Satinder.Sidhu@washcoll.edu (Satinder Sidhu)

Subject: Electronics course To: gingrich@Phys.UAlberta.CA

Status: RO 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

\_\_\_\_\_\_

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.

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

thank you.

- i have been longing to know how mirco computers worked.
- i have worked with windows, dos, and currently using unix and being taught about sql
- i have been enlighted by your webpage

http://www.phys.ualberta.ca/~gingrich/phys395/notes/phys395.html

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

thank you Patricia

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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

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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.

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

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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 alot 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 accessable 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

\_\_\_\_\_\_

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

\_\_\_\_\_\_

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