Physics 496
Introduction to Research

Lecture 9.0: Preparing a CV

Ingredients: CME 98%, TML 2%, DHB ε

What do you need a CV for?

Many things:

- Grad school application!
- Employment
- Promotion
- Awards
- Research Proposals

The purpose of a CV is to convince the recipient that you have the requisite skills and experience.

Update your CV regularly so you don't have to scramble when it's needed.

What is a CV?

CV = *curriculum vitae* (life story)

A concise summary of a person's education and experience.

Typically includes
- Education
- Employment history
- Honors & awards
- Affiliations
- Publications
- Service to the profession
- Other information if required

In some instances you will have to follow a specific format

Include all required information

Adhere to page limits and formatting requirements

Do not include personal information that is unrelated to your skills and experience, such as
- Marital status
- Age or date of birth
- Dependents
- Health

unless it is required.

Most often the format is up to you

Make it look professional! Stay away from funky fonts!

Some guidelines:

Your name goes on the first line

Center your name and affiliation at the top of the page
Provide complete contact information

TONY M. LISS
Department of Physics
University of Illinois at Urbana-Champaign
1110 West Green Street
Urbana, Illinois 61801
(217) 244-2101
e-mail: tml@illinois.edu

Education & training are next

Title the section “Education” or something similar

List each institution you have attended in chronological order including in each

- Institution name and location
- The degree you earned and in what year
- Your major field of study
- Include honor designations, if applicable

EDUCATION

University of California at Berkeley
Degree: Ph.D., Physics, February 1984

University of California at Berkeley
Degree: M.S. Physics, 1983

The Johns Hopkins University, Baltimore MD
Degree: B.A. Physics, 1979

Next is employment

Section title: Employment

List every institution where you have worked, most recent first. Include every professional appointment since you completed your last academic degree.

Each entry should include
- Institution name and location
- Your job title
- The years you worked there

EMPLOYMENT

Department of Physics, University of Illinois at Urbana-Champaign
July 1988 to August 1994, **Assistant Professor**
August 1994 to August 1998 **Associate Professor**
August 1998 to present **Professor**

1984-July 1988, **Postdoctoral Research Associate**
Enrico Fermi Institute, University of Chicago

1980-1984, **Research Assistant**
Department of Physics, University of California at Berkeley

What about listing non-physics jobs?

It depends on where you are submitting your CV.

It may help to show your maturity and reliability. – If so, add it.

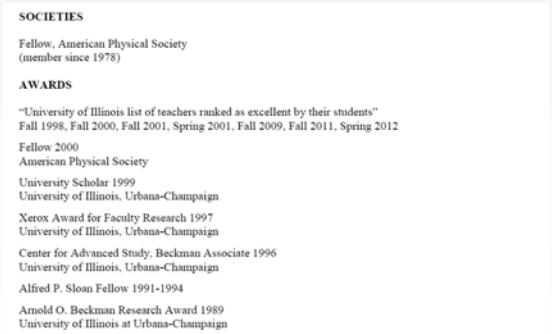
It may help to demonstrate leadership, communication, or other relevant skills. – If so, add it.

On the other hand, if you're applying for a faculty position, a job mowing lawns in high school will not help. – don't add it.

Next comes honors & awards and professional associations

Honors & awards: include
- Title of the award
- Entity that bestowed the award
- Year it was given

Professional associations: include
- Name of the association
- Your rank (member, fellow,…)
- Year you have been associated with the organization



SOCIETIES

Fellow, American Physical Society
(member since 1978)

AWARDS

"University of Illinois list of teachers ranked as excellent by their students"
Fall 1998, Fall 2000, Fall 2001, Spring 2001, Fall 2009, Fall 2011, Spring 2012

Fellow 2000
American Physical Society

University Scholar 1999
University of Illinois, Urbana-Champaign

Xerox Award for Faculty Research 1997
University of Illinois, Urbana-Champaign

Center for Advanced Study, Beckman Associate 1996
University of Illinois, Urbana-Champaign

Alfred P. Sloan Fellow 1991-1994

Arnold O. Beckman Research Award 1989
University of Illinois at Urbana-Champaign

List research interests and significant contributions

Keep the entries short – 2-3 lines max.

Restrict entries to primary interests and key contributions.

Select those most closely related to the purpose at hand.

RESEARCH INTERESTS

High-energy hadron collisions
Electroweak symmetry breaking
Top-quark physics
Physics beyond the standard model

RESEARCH CONTRIBUTIONS

Design and construction of CDF muon upgrade.
Discovery of the top quark (with collaborators).
Measurement of top-quark properties.
Measurement of top-quark production cross section at the Tevatron and at LHC.

List your publications

This can be a problem if you are a member of a large collaboration (I have >400 publications). List *principal* publications (those in which you were central) if needed.

Provide complete bibliographic citations
Author, title, journal, volume, page number, year
Author, title, publisher & city, publication year (for books)

- CDF Collaboration, "First Measurement of the $t\bar{t}$ Differential Cross Section $d\sigma/dM_{t\bar{t}}$ in $p\bar{p}$ Collisions at $\sqrt{s}$ =1.96 TeV ", Phys. Rev. Lett. **102** 222003 (2009).
- "The Top Quark", T.M. Liss & A. Quadt in J. Beringer *et al.* (Particle Data Group), Phys. Rev. **D86**, 010001 (2012) (http://pdg.lbl.gov). (This review is revised every year)
- ATLAS Collaboration "Measurement of the top quark pair production cross section with ATLAS in pp collisions at 7 TeV", European Journal of Physics **C71**, 1577 (2011).
- ATLAS Collaboration, "Measurement of the top quark pair production cross section in pp collisions at $\sqrt{s}$ = 7 TeV in dilepton final states with ATLAS", Phys. Lett. **B707**, 459 (2012).
- ATLAS Collaboration, "Measurement of the Cross Section for top-quark pair production using final states with two high-pt leptons" Journal of High Energy Physics **1205**, 059 (2012).

Include a list of presentations and conference talks

Title the section "Invited Talks"
Include the title of the talk, the venue, and the date.

When you get older you may have a long list, in which case it can be "Recent Invited Talks"

Recent Invited Talks

- "The Top Quark at CDF, Production & Decay Properties", Workshop on Top Physics at LHC, Grenoble, France, October 2007.
- "What Do We Know About the Top Quark," University of Louvain, Belgium, Seminar, November 2007.
- "Quarks, Leptons, Bosons, the LHC and all That", Osher Life-Long Learning Institute, September 2008.
- "Top Physics at the Tevatron," CERN Top Quark Theory Institute, May 2009.
- "Top Physics at the Tevatron", French-Korean Workshop, Paris, June 2009.
- "How the Biggest Science Project Ever Looks at the Smallest Things: The LHC and the Very Early Universe", World of Science talk., Staerkel Planetarium, Champaign, IL. February, 2010.
- "Unlocking the Dark Secrets of the Universe", Saturday Morning Physics, Department of Physics, Urbana, IL. December 2010.
- "Top Physics at ATLAS," University of Chicago Seminar, February, 2012
- "The Short, Brutish Life of Particles at the LHC," Illinois Section American Association of Physics Teachers, After Dinner Speaker., March 2012
- "Measurements of Top Quark Properties at ATLAS, CMS, CDF and D0," Physics in Collision 2012, Štrbské Pleso, Slovakia, September, 2012
- "The Higgs Boson & Mysteries of the Universe", Rheticus Forum, Champaign, IL, November 2012.
- "After the Higgs", UIUC Department of Physics Colloquium, February, 2013
- "After the Higgs", Colorado College Department of Physics Colloquium, April, 2013

A narrative CV can also be useful

Tony Liss received his Ph.D from the University of California, Berkeley, in 1984, after receiving a B.S. in physics from Johns Hopkins University in 1979. He was a postdoctoral research associate at the University of Chicago from 1984 to 1988, when he joined the Department of Physics as an assistant professor. He was promoted to associate professor in 1994 and to professor in 1998.

Liss is an experimental high energy physicist whose research probes the fundamental nature of matter at very high energy and at very small distance scales. He has carried out research at the Fermilab National Accelerator Laboratory (FNAL) since 1984, and more recently at CERN in Geneva, Switzerland.

At Fermilab, Professor Liss is a leading member of an international collaboration, the Collider Detector at Fermilab (CDF) collaboration, which has built and operated a large multi-purpose particle detector (the CDF detector), which studies collisions between protons and antiprotons with a center-of-mass energy of 1.96 TeV. He served as the convener of the Top group at FNAL and was one of the leaders of the analysis for the discovery of the top quark. He was the Physics Coordinator for CDF for 2002-04.

Liss' research focus has recently moved to the Large Hadron Collider (LHC) at the European physics laboratory, CERN, just outside of Geneva Switzerland. When the LHC turns on in Fall 2008, it will become the highest energy collider in the world, eclipsing the Fermilab Tevatron. Liss is a member of the ATLAS collaboration at LHC and, together with his post docs and students, works on the ATLAS muon detector system.

Keep it short. You *can* include it in your formal CV (though that's not usually done), near the top, right after your contact info.

Or a short bio may be required

Douglas Beck

Douglas Beck has been a Professor of Physics since 1989. He has served on the Department Appointments and Promotions Committee, as Vice-Chair of the College of Engineering Executive Committee, and as Chair of its Promotion and Tenure Committee, as well as on the campus Provost search committee and as chair the Chancellor search committee. Together with Rob Ghrist and Randy McCarthy, he conceived of and led the CoE/LAS Calculus Project for its first four years; he has been honored with the Arnold T. Nordsieck teaching award of the Department of Physics. For the past seven years he has been chair of the Program Advisory Committee for Nuclear and Particle Physics of Brookhaven National Laboratory, and has served on numerous other reviews and committees in the physics community. He is a Fellow of the American Physical Society and has been co-editor of the Springer book series Advances in the Physics of Particles and Nuclei.

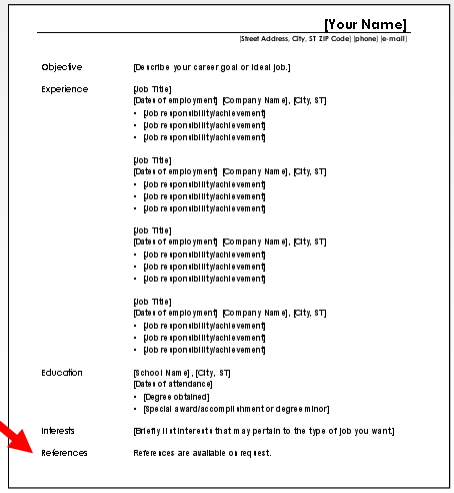
Keep it short. This particular one is for nomination to a campus search committee.

Celia says

Do not use one of the MS templates

"The MS Word templates are terrible; they have a lot of wasted space, tiny fonts, and emphasize your complete lack of creativity or willingness to do more than the bare minimum."

"And don't include "References furnished on request"—of ***course*** you're going to give somebody references! Use the valuable real estate on your CV to tell the reader something useful; don't waste space on a witless statement such as this one."



[Your Name]
[Street Address, City, ST ZIP Code] [phone] [e-mail]

Objective — [Describe your career goal or ideal job.]

Experience
[Job Title]
[Dates of employment] [Company Name], [City, ST]
- [Job responsibility/achievement]
- [Job responsibility/achievement]
- [Job responsibility/achievement]

[Job Title]
[Dates of employment] [Company Name], [City, ST]
- [Job responsibility/achievement]
- [Job responsibility/achievement]
- [Job responsibility/achievement]

[Job Title]
[Dates of employment] [Company Name], [City, ST]
- [Job responsibility/achievement]
- [Job responsibility/achievement]
- [Job responsibility/achievement]

[Job Title]
[Dates of employment] [Company Name], [City, ST]
- [Job responsibility/achievement]
- [Job responsibility/achievement]
- [Job responsibility/achievement]

Education
[School Name], [City, ST]
[Dates of attendance]
- [Degree obtained]
- [Special award/accomplishment or degree minor]

Interests — [Briefly list interests that may pertain to the type of job you want.]

References — References are available on request.

Resources

The AAAS has good advice on many things, including preparing a resume.