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ASSOCIATION FOR WOMEN IN SCIENCE

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Fundamentals of Financial Planning that Wall Street Forgot

By Edi Alvarez

Wall Street succeeds when one investor sells and another buys. Reward is derived from the sale without reference to the investor's personal circumstance, needs or goals. "The Market" determines the fair value of each sale. It's an amoral transaction that assumes the purchaser has done their due diligence — evaluating both risk and potential return. Caveat emptor.

Conscientious investors will at least pay lip service to Wall Street metrics, actually combing through the latest prospectus before making their purchase (even though the document may be weeks, or sometimes months out of date), attempting to fathom what sometimes seems unfathomable. Better than tossing darts. Alas, Wall Street is much better at helping you with the investment purchase than helping you determine if you should sell it. Where's the prospectus for that. So, in a desperate effort to anticipate rallies or declines, investors will rely on trends, tips, promises, celebrity pundits or the alignment of planets. There's only one clear consequence to all this — an investment decision that lags the market stands a better chance of losing than making a profit. Although Wall Street benefits every time we react to FEAR, it can't control the extent to which fear spreads and undermines investor confidence.

The investment bankers on Wall Street forgot something financial planning clients learn during their first year engagement — they forgot that emotional impact during a down market alters people's risk perception. With a focus on the market, instead of one's own financial plan, FEAR takes over and often the reaction generates huge losses. Let's examine how well financial markets handle risk capacity, tolerance and perception. In the last year, market-to-market pricing (1) brought a level of reality to the valuation of securities that had been overpriced. As a result of bringing reality to the pricing of these securities, many financial organizations are forced to re-evaluate their debt and assets (even if they do not wish to sell them) as other financial organizations drastically discount similar securities. Financial organizations that hold any of these discounted assets could easily lose fifty percent of their value in a short timeframe, BUT only if the market "thinks" those positions were overpriced.

Some would like to ban market-to-market pricing which reveals what an asset is really worth today (2). I would say that the problem is not with market-to-market pricing accounting, but rather with the fact that these organizations did not develop a way to adjust to the expected downside of such investments. After all, the executives creating and selling these products are very well compensated and should plan for all eventualities. A lack of planning served these firms well during market rallies since they were paid on gains NOT on how well they protected against a downturn. To now ask the tax payer to pay for this protection seems to me to be enabling those who chose not to plan. Is anyone looking at a risk-return plan for the \$700B bailout package? It seems like we are continuing to react to Wall Street instead of planning for our country's financial goals.



Financial Planning is a Process That Captures, and to Some Extent Quantifies, Your Attitudes and Perceptions about Money

In retrospect, if these firms had adhered to the fundamentals of financial planning, they would have carefully analyzed the risk in these investments particularly during a down market. Presenting this information clearly to investors would have helped all of us to weather the current financial storm within our own return-risk tolerance.

Let's face it; even the so-called pros don't always make the best market decisions.

If you can't trust in Wall Street, what is the average "Jane" to do? Plainly, putting your hard earned cash into a low-interest CD or Treasury note that barely keeps up with inflation is not going to prepare you for all of life's vicissitudes.

Ask yourself this — did you foresee the extent of the current global financial crisis? Okay, smarty-pants, if you answered "yes," did you (and do you still) feel secure about your investments? Well, maybe you did, but most do not. The majority invest in Wall Street without a strategy or plan or an understanding of their tolerance for market downturns. A well designed financial plan should give individuals the confidence to lead their busy lives without worrying about Wall Street.

Despite what you may have heard, financial planning is not about accumulating as much material wealth as you can, nor is it all about investing, or buying life insurance. Although these are components of a financial plan they are not at the core. Financial planning is actually a process that captures, and to some extent quantifies, your attitudes and perceptions about money. The end result is a clear and concise approach that is specifically designed to help you make financial decisions supporting your goals — it takes into account your likely reactions during different markets, ensuring that you can and will stick with your plan. Those goals, of course, vary according to individual and circumstance and require that you regularly update your plan.

The process can delineate a target for retirement and determine when it might be reasonable to buy a car or fund a worthy charity. It can shed light on what you value most and ensure that those values are supported and protected. It can help you to identify what will be your life's focus. Will it be your career, family, travel or some combination of these or other goals?

Successful financial plans have two things in common. They make it possible to live life relatively free of financial worry, regardless of the state of the economy. And, they provide a clear internalized rationale for financial decisions. You will know how you can use your resources now and in the future.

The financial planning process starts with careful exploration of your goals and deeply felt personal values and attitudes. Goals need to be clear and measurable. They can include your career, dreams, and expectations for the short, medium and long haul. Once you fully understand what you really want out of life, your financial planner can help you evaluate all available resources and help establish how to best align them to fully support your goals. No less important is a thorough study of your financial exposure so that you can determine any risks involved (i.e., those things that could derail your plan).

Ideally, your financial plan will furnish you with "the big picture" — your finances, including your employee benefits, retirement planning, taxes, insurance, investments and estate planning. Although integration may take some time, each sphere must be viewed in an integrated manner that takes into account your goals and risk profile.

Communication is essential when you are working through your financial plan. Your planner-adviser must acquire an intimate appreciation of your capacity and tolerance for volatility. First they will look at your capacity to tolerate changes in the market which depend largely on goals and how well they can be met with existing assets. Once you review your plan for example, you may need to invest in riskier securities, sell certain assets, or self insure certain exposures so that you meet your goals. That, or face facts and adjust your goals accordingly. Risk capacity is really less about your emotions and more about what assets you have and how well they support your goals. Although your tolerance for risk is usually fairly constant, as markets ebb and flow you will likely find that your risk perception changes (3). Perception can make you fearful of down markets or can fill you with a sense of opportunity. Either way, a well crafted financial plan will facilitate the allocation of your resources according to your level of risk capacity, tolerance and perception.



Communication is Essential!



A solid financial plan is a form of protection from your own reactions during emotionally charged situations that are beyond your control. In addition, a fully diversified financial plan should not set you up to lose more than what you have the capacity and tolerance to lose even when one asset is drastically marked down. We all need to look at our own plan and to see that it provides protection, is fully diversified, and will allow us to move through life challenges. Are our politicians preparing such a plan for us? Are we preparing such a plan for ourselves?

Financial planning, you should understand, is not a one-time event. The process in its ideal form is an ongoing and lifelong commitment to measuring where one is, exploring possibilities and adjusting our path towards our dreams. When Wall Street does not expose and explore the downside risk of products they thwart our efforts for long term steady earning and replace it with short term volatility that increases transactions but add little real value. In my view, this is where regulation should play a role, requiring that risks be quantified clearly and timely for investors.

Why should you undertake a financial plan? As women, we are often at the center of multi-generational support entailing a financial component. As scientists, a financial plan should be a no brainer. Our entire career is based on building processes that allow us to move science forward, be they

grants, proposals, articles, IP or IND filings. We've worked gathering and organizing scientific findings in a systematic manner that can yield some insight or help us evaluate and advance our scientific field — we plan every day of our lives to ensure that there is a logical process to our scientific endeavors. In addition, as educated participants in this economy we notice that the current global economic crisis demonstrates that those in charge do not have a plan and do not provide us (the investors), with clear information on our exposures. Although some think that financial planning is distasteful, in my experience it is a life changing and gratifying effort, almost an epiphany.

What can a financial plan do for you in these times of economic and financial uncertainty? First and foremost, it can render your financial options into clearly defined actions designed to help you reach your goals. Should new opportunities arise — a new job offer, a new investment, a child or retirement — you will have a structure within which to make each decision. With a financial plan in place, the time and effort required to make these complicated decisions is drastically reduced. By definition, you will have established a well diversified portfolio. Your diversified, risk adjusted, asset allocated investment plan will take advantage of opportunities to reach your goals without taking unnecessary risk or diverting precious resources beyond your risk tolerance.

A financial plan will establish how you perceive risk and how you may react to a downturn, identifying precise ways and means to overcome those fears (leading to less anxiety when the market takes an unexpected downturn.) It will state in no uncertain terms what you really have available each month and how much you need to make available to enjoy your life and reach your stated goals. It will address your exposure with an emergency/security fund that truly matches your particular risk of unemployment or illness, or the possibility of upcoming career changes. Sometimes, it will reveal that perceived need doesn't match reality so you will need to adjust your goals. It will evaluate what exposure you have covered and whether the existing coverage meets your current and future needs.

My advice? Whether or not you work with a financial planner, use this time to evaluate your financial condition. Do you have a structure on which to make financial decisions?

Do you understand your capacity, tolerance and emotional reactions to risk? Has the failure of Bear Stearns, Northern Rock (first run on a Bank in Britain since 1866!), AIG, Lehman Brothers and WAMU caused you anxiety over your financial future? If so, set up a plan that will allow you to build the resources you'll need in the future and feel confident that regardless of what happens in the economy, in the markets, or in your life, you have a structure and an understanding of how to direct your finances so that you remain aligned with your goals and do not give in to emotion (4). Some will think that this does not apply to them since they don't have enough money to start to plan, but this is not just about money. Don't leave your financial decisions to emotions or last minute decisions (3). Get to know yourself and how you react and handle choices in your life (4) — don't let Wall Street rule your life, take control and you will be better able to weather "The Market" which none of us control. It is never too soon to start to add structure to your financial decisions.

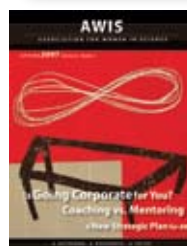
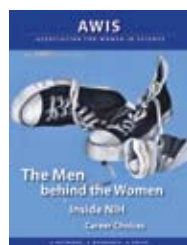
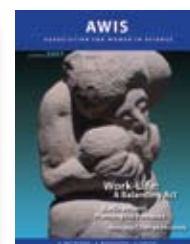
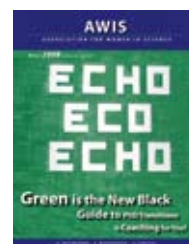
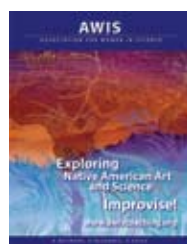
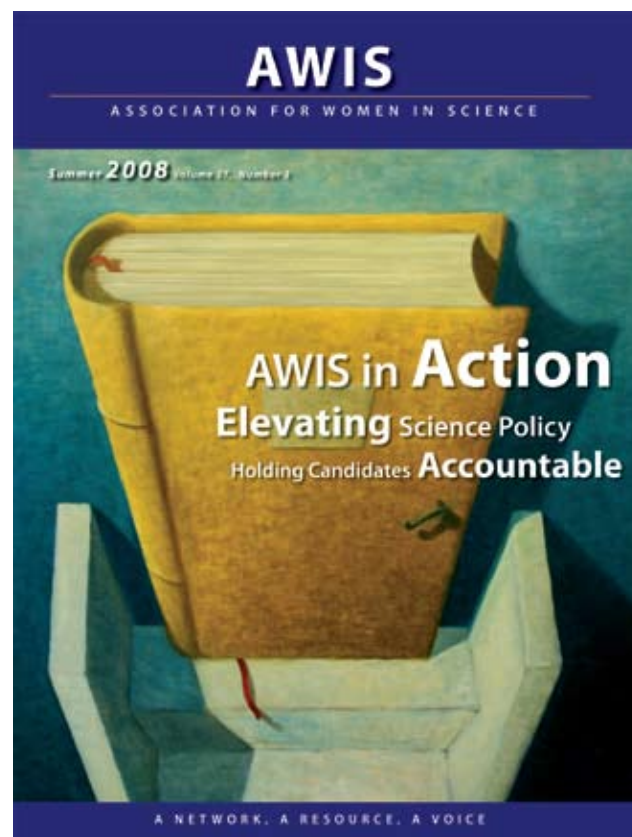
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More information can be found at: http://latimesblogs.latimes.com/money_co/2008/09/the-angry-debat.html
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Edi Alvarez works in the financial services industry. She holds a Master of Science and Bachelor of Education and Bachelor of Science degrees from Queen's University, Canada, and serves on the executive board of the San Francisco AWIS Chapter. Edi can be contacted at edi@aikapa.com.

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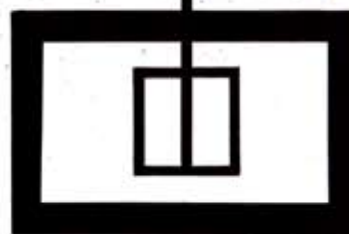
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Tenure Track Faculty Position in Experimental Particle Physics in the Department of Physics and Astronomy

The Department of Physics and Astronomy at the University of Rochester invites applications for a tenure-track faculty position in Experimental Particle Physics. With this position, we seek to broaden the research portfolio of our existing program, which includes research in hadron collider physics at CMS (LHC), CDF and D0, neutrino physics at MINERvA and T2K and quark flavor physics at CLEO and BES. We are particularly interested in considering candidates with a research interest in non-accelerator based particle physics or particle astrophysics, but will consider candidates across the spectrum of Experimental Particle Physics.

Applicants should have a Ph.D., an outstanding record of research, and a commitment to excellence in teaching at both the undergraduate and the graduate level. The appointment is anticipated to be at the junior level; however, applicants at a more senior level will also be considered. Each candidate should submit a letter of application, a curriculum vitae including a list of publications, a description of research and teaching plans and arrange for at least four letters of recommendation to be sent to:

**HEP Faculty Search Committee
c/o Ms. Shirley Brignall
Department of Physics and Astronomy
University of Rochester
Rochester, NY 14627**

Applications may also be submitted by email sent to **shirl@pas.rochester.edu**. Applications will be considered on an ongoing basis beginning in **November 2008**.

The University of Rochester, an Equal Opportunity Employer, has a strong commitment to diversity and actively encourages applications from candidates from groups underrepresented in higher education.



**FACULTY OF MEDICINE
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University of Toronto

DEPARTMENT OF LABORATORY MEDICINE AND PATHOBIOLOGY ACADEMIC POSITION IN MICROBIAL PATHOGENESIS

The Department of Laboratory Medicine and Pathobiology, Faculty of Medicine, University of Toronto (www.lmp.facmed.utoronto.ca) is seeking applicants for one full-time tenure-stream faculty position at the rank of Assistant Professor available July 1, 2009 or at a mutually agreeable date. The position comes with a faculty salary commensurate with the applicant's experience and training. The successful applicant will be provided with a start-up package and space to establish a strong independent research program. We are particularly interested in dynamic individuals working in the areas of molecular and biochemical mechanisms of microbial disease, including virology.

Candidates must have a PhD, have completed significant postdoctoral training, and have an established track record of high quality innovative research. Exceptional candidates with established funded research programs and a rank of Associate or Full Professor may be considered as well. Teaching experience at the undergraduate and graduate level is an asset.

The successful candidate is expected to participate actively in graduate and undergraduate teaching programs, maintain a well-funded, independent research program and interact with other investigators on the University campus and at the major affiliated teaching hospitals. The University of Toronto is the fourth largest research entity in North America, with a large vibrant community of investigators carrying out excellent innovative research on the pathogenesis of microbial disease. The interaction of basic scientists with clinicians at the teaching hospitals and also at the Public Health Laboratories provides for outstanding opportunities for transformative research.

Applicants should submit a hard copy of curriculum vitae, description of their research accomplishments, the focus of their planned research program and the names of three referees by December 23rd 2008 or until the position is filled, to the

**Chair, Academic Search Committee, Department of Laboratory Medicine and Pathobiology, Faculty of Medicine,
University of Toronto, Room 110, 100 College Street, Toronto, Ontario, Canada, M5G 1L5.**

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities, members of sexual minority groups and others who may contribute to the further diversification of ideas.

All qualified candidates are encouraged to apply. However, Canadians and permanent residents will be given priority.

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Detailed program information, including instructions on how to apply, is available on the NRC Web site at:
www.national-academies.org/rap

Applicants must initiate dialogue with prospective Advisors at the Lab as early as possible, before their anticipated application deadline.

Questions should be directed to the :

National Research Council

TEL: (202) 334-2760

E-MAIL: rap@nas.edu

Qualified applicants will be reviewed without regard to race, religion, color, age, sex or national origin.

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In accordance with Federal statutes and regulations, no person on the grounds of race, color, age, sex, national origin or disability shall be excluded from participating in, denied the benefits of, or be subject to discrimination under any program activity receiving financial assistance from the Department of Defense.

The Department of Computer Science at the University of Chicago

invites applications from exceptionally qualified candidates in all areas of

Computer Science for faculty positions at the ranks of Professor, Associate Professor, Assistant Professor, and Instructor.

The University of Chicago has the highest standards for scholarship and faculty quality, and encourages collaboration across disciplines.

The Chicago metropolitan area provides a diverse and exciting environment. The local economy is vigorous, with international stature in banking, trade, commerce, manufacturing, and transportation, while the cultural scene includes diverse cultures, vibrant theater, world-renowned symphony, opera, jazz, and blues. The University is located in Hyde Park, a pleasant Chicago neighborhood on the Lake Michigan shore.

Please send applications or nominations to:

Professor Stuart A. Kurtz, Chairman
Department of Computer Science
The University of Chicago
1100 E. 58th Street, Ryerson Hall
Chicago, IL. 60637-1581

or to:

apply-080140@mailman.cs.uchicago.edu
 (attachments can be in pdf, postscript, or Word).

Complete applications consist of (a) a curriculum vitae, including a list of publications, (b) forward-looking research and teaching statements. Complete applications for Assistant Professor and Instructor positions also require (c) three letters of recommendation, sent to recommend-080140@mailman.cs.uchicago.edu or to the above postal address, including one that addresses teaching ability. Applicants must have completed, or will soon complete, a doctorate degree.

We will begin screening applications on **December 15, 2008**. Screening will continue until all available positions are filled.

The University of Chicago is an equal opportunity/affirmative action employer.



Assistant or Associate Professor ECOLOGICAL MODELING

The Division of Biological Sciences (www.biology.missouri.edu) at the University of Missouri-Columbia invites applications for a tenured or tenure-track position in ecological modeling. We are particularly interested in candidates who develop, expand and evaluate modeling tools to study ecological problems. The successful candidate will establish a research program that complements our existing strengths in ecology and evolutionary biology, conservation biology, and genetics. S/he will join a diverse group of biologists in the Division of Biological Sciences with interests in cell and developmental biology, neurobiology and behavior, and ecology and evolutionary biology. MU also features a strong interdisciplinary program in Conservation Biology (conservbio.missouri.edu).

We offer a highly competitive salary and start-up package, an active doctoral program with institutional support for students, and a highly interactive faculty. We are deeply committed to ethnic, racial and gender diversity in our faculty and strongly encourage applications from women and members of groups underrepresented in science.

Send application by e-mail to: ecomod@missouri.edu. Attach a single Adobe Acrobat PDF or Microsoft Word document that includes your vita and statement of research and teaching interests. Have three letters of reference mailed to: **John David, Chair, Division of Biological Sciences, 105 Tucker Hall, University of Missouri, Columbia, MO 65211-7400**. Review of applications will begin December 1, 2008. To request ADA accommodation contact Johnette Blair at 573-882-6650 or BlairJo@missouri.edu.

MU is an Equal Opportunity-Affirmative Action Employer



Assistant or Associate Professor PLANT DEVELOPMENTAL BIOLOGY

The Division of Biological Sciences (www.biology.missouri.edu) at the University of Missouri-Columbia invites applications for a tenured or tenure-track position. Candidates should use cellular, molecular, genetic, and/or systems approaches to understand mechanisms that regulate plant growth and development. We are particularly interested in candidates with strong quantitative skills and/or theoretical modeling approaches. The successful candidate will establish a research program that complements our existing strengths in developmental biology, genetics, functional genomics/proteomics and evolution. S/he will join a diverse group of scientists in the Life Sciences Center (lifesciences.missouri.edu), a state-of-the-art, multi-disciplinary facility and a hub of life science research on campus. MU also features strong interdisciplinary programs in Plant Biochemistry/Molecular Biology/Physiology/Genetics (<http://ipg.missouri.edu>).

We offer a highly competitive salary and start-up package, an active doctoral program with institutional support for students, and a highly interactive faculty. We are deeply committed to ethnic, racial and gender diversity in our faculty and strongly encourage applications from women and members of groups underrepresented in science.

Send application by e-mail to: pltdvp@missouri.edu. Attach a single Adobe Acrobat PDF or Microsoft Word document that includes your vita and statement of research and teaching interests. Have three letters of reference mailed to: **John David, Chair, Division of Biological Sciences, 105 Tucker Hall, University of Missouri, Columbia, MO 65211-7400**. Review of applications will begin December 1, 2008. To request ADA accommodation contact Johnette Blair at 573-882-6650 or BlairJo@missouri.edu.

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Princeton University

Faculty Positions

Princeton University invites applications from junior and senior scholars for positions as

tenure-track assistant professor, or tenured associate or full professor in any of its departments in the humanities, social sciences, natural sciences, or engineering.

Princeton University is an equal opportunity employer and complies with applicable EEO and affirmative action regulations. Please submit a cover letter and cv online at

<http://jobs.princeton.edu>, requisition # 0800609

TENURE TRACK POSITION – ASSISTANT PROFESSOR

Microbiologist Food Science and Technology
University of California, Davis

The Department of Food Science and Technology is currently seeking to fill a faculty position by July 1, 2009. We are interested in individuals who have or can establish a strong extramurally funded research program in an advanced contemporary area of microbiology related to food safety microbiology including, but not limited to, (i) mechanisms of pathogenesis of foodborne pathogens (ii) microbial physiology and biochemistry (iii) microbial genetics and the use of large-scale genomic analyses to develop innovative research directions; (iv) microbial ecology and interactions within food systems and the human gastrointestinal tract; (v) advanced research to develop new approaches for the detection and identification of pathogens, spoilage organisms and microbes used in fermentations or as food. Candidates are expected to have a PhD (or equivalent) and demonstrated ability in microbiology or a related discipline. Postdoctoral experience is highly desirable. Selection will be based in part on a record of research publications in internationally recognized peer-reviewed journals, and the ability to obtain extramural funding. The specific research program will depend upon the expertise and interests of the candidate. The successful applicant will be expected to develop an independent, internationally recognized research program and contribute to the mission of the CAES and its associated Agricultural Experiment Station, teach at the undergraduate and graduate level, and supervise graduate student thesis research.

Applicants should submit online at <https://secure.caes.ucdavis.edu/Recruitment> a letter of application, curriculum vitae (including list of publications), a statement of research, a separate statement describing teaching interests and background; reprints of three publications and names, addresses including e-mail, and telephone numbers of three references. The position is open until filled; but to assure full consideration, completed online applications should be submitted no later than February 1, 2009, for a targeted start date of July 1, 2009.

UC Davis is an affirmative action/equal employment opportunity employer and is dedicated to recruiting a diverse faculty community. We welcome all qualified applicants to apply, including women, minorities, veterans, and individuals with disabilities.

Assistant Professor - Tenure Track Department of Chemistry

Hobart and William Smith Colleges invites applications for tenure-track position in biochemistry beginning Fall 2009. Ph.D. in chemistry, biochemistry, or related field required, as is evidence of excellent teaching and commitment to undergraduate teaching and research. Post-doctoral experience highly desirable. The department is ACS-certified, very well equipped, and has a large and diverse group of students. Start-up funds available. Further information and a more detailed description of the position opening may be found at <http://academic.hws.edu/chem/>

Submit CV, description of teaching philosophy, research plans, and arrange for three letters of recommendation to be sent to:

**Search Committee Chair, Department of Chemistry,
Hobart and William Smith Colleges, Geneva, NY, 14456.**

Review of applications begins late September and continues until position is filled.

Hobart and William Smith Colleges are committed to attracting and supporting a faculty of women and men that fully represent the racial, ethnic, and cultural diversity of the nation and actively seek applications from under-represented groups. The Colleges do not discriminate on the basis of race, color, religion, sex, marital status, national origin, age, disability, veteran's status, or sexual orientation or any other protected status.

Faculty Position in Experimental Physics Emory University

The Department of Physics seeks applicants for a tenure-track faculty position at the assistant professor level in Experimental Physics beginning fall 2009. The Department of Physics currently is building research strengths in two areas, soft condensed matter and biophysics, as part of an ongoing departmental expansion following our recent move into new research and teaching facilities. Candidates who complement one or both of these areas will be given preference, but strong applicants in any field of physics are invited to apply. Candidates are expected to establish an independent, externally funded research program, and to be committed to excellence in teaching at the graduate and undergraduate levels. Applicants should send curriculum vitae and a statement of research plans to:

**Chair, Faculty Search Committee
Emory University / Department of Physics
400 Dowman Drive
Mail stop 1131/002/1AB
Atlanta, GA 30322-2430**

Arrangements should be made for at least three letters of reference to be sent independently. Electronic applications are also accepted, at

search@physics.emory.edu

Questions about the search should be directed to
weeks@physics.emory.edu

For more information about the Department, please visit the website
<http://www.physics.emory.edu>

Consideration of the candidates will commence on December 1, 2008.

Emory University is an AA/EOE.

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- » Enrolled, accepted, or seeking acceptance at a U.S. college or university (applicants for undergraduate awards must be enrolled)
- » At least 18 years of age and are United States citizens

FOR MORE INFORMATION AND TO APPLYwww.asee.org/smart**QUESTIONS?**Contact: smart@asee.org**AWIS**

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