



# Madison Section NEWSLETTER

Volume 5, Number 5

Serving IEEE Members of South Central Wisconsin

May 2002

## Tour of Space Astronomy Lab (SAL) and Space Physics Department

- Date/Time:** Thursday, May 23, 2002, 5:30 PM dinner, 7:00 PM tour  
**Speaker:** Jeffrey W. Percival (Senior Scientist, Space Astronomy Laboratory) & Dan McCammon (Professor, Physics)  
**Location:** dinner - Luther's Blues, 1401 University Ave., tour - Space Astronomy Laboratory & Space Physics, Chamberlin Hall  
**Menu:** order off the French Quarter Cafe menu (online at <http://www.luthersblues.com/>)  
**RSVP:** by May 20th to Tom Yager via email ([tyager@biocentricolutions.com](mailto:tyager@biocentricolutions.com)) or call 608.821.0821 ext. 342

*Non-member guests are always welcome!*

This month's meeting will consist of dinner at Luther's Blues (see their web site at <http://www.luthersblues.com/> for directions and parking information) followed by a tour of the Space Astronomy Laboratory and Space Physics Dept. After dinner, we will all walk from Luther's Blues to Chamberlin Hall for the tours.

The Space Astronomy Laboratory (SAL) is a unit of the Astronomy Department at the The University of Wisconsin. SAL designs and builds instruments for the Department of Astronomy. These instruments help the Astronomy Department's faculty to do research in both space-based and ground-based astronomy. Research in space is performed using rockets, balloons, the Space Shuttle, and free-flying satellites. Ground-based research is performed primarily at the Astronomy Department's two research telescopes, the 3.5 meter WIYN telescope in Arizona and the 0.9 meter telescope at Pine Bluff Observatory in Wisconsin.

Jeffrey's principal research interests center on using computers, computer software, and new computer algorithms to perform astronomical research and advance the work of other astronomers at UW. Examples of his research in this area include the creation of high precision astrometric software to produce mean light curves from space-based pulsar photometry with sub-microsecond precision, the use of new wavelet compression theory to develop and test a viable method of transmitting astronomical images over inexpensive but slow data links while maintaining a very high effective bandwidth, and a new state-machine approach to the traditional problem of producing and reducing astronomical coordinates for the purposes of pointing a telescope.

Dan's main work is in X-ray astronomy, which he likes because of all the weird things that you see and because you can have fun building the X-ray detectors and flying them on "bottle rockets" (X-rays don't make it down through the atmosphere, so you have to get your experiment up above it somehow). Lots of undergrads have helped out with these projects, and more should! He also teaches in the Physics department, and likes sailing, volleyball, and bicycling. He was an undergraduate at Caltech, a grad student at the UW, and now has a daughter at West High.

## IEMDC Conference in Madison, WI

Many section members will be interested to learn that the fourth IEEE International Electric Machines and Drives (IEMDC) Conference will be held in Madison Wisconsin, June 1-4, 2003. The Conference is sponsored by four IEEE Societies: IAS, IES, PELS and PES. The primary focus of the conference is electric machinery, drives, related power electronics and controls. IEMDC will also feature special sessions on automotive applications, aerospace applications, large turbogenerators and office automation. The deadline for submission of abstracts and digests is October 21, 2002. Joe

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## IEEE MADISON SECTION NEWSLETTER

Printing and Mailing by: SprintPrint  
2790 S. Fish Hatchery Rd.  
Madison, WI 53711

Published 9 times per year (Jan. - May & Sep. - Dec.) by the Madison, Wisconsin Section of the Institute of Electrical and Electronic Engineers (IEEE), as a service to its members in south-central Wisconsin.

Mailed at Madison, Wisconsin as 3rd Class, Non-Profit postage. Permit No. 953.

Online at: <http://www.bugsoft.com/ieee/>

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Warnemuende is representing the IEEE Madison Section on the Conference Committee. More conference details can be found at the conference website: <http://www.iemdc03.org>.

## Job Search Strategies — Planning for Results

by Amina Sonnie

“Job search.” These two words seem to produce more groans than a power lifter in a gym. Many people find the process of searching for a new job to be the bane of their existence. In workshops, I often warn participants that the words “job search” will, at times, push them to their physical and mental limits. I do not say this to instill fear, but rather to prepare them for what lies ahead; “job search” means work!

### BEFORE YOU BEGIN

Before you actually begin your job search, you'll need to spend some time thinking about what you want to do. Try to spend time away from family, co-workers and friends, giving yourself an opportunity to think about the job that would be ideal for you. Assess your skills; investigate your likes and dislikes in the workplace; identify your experiences and interests; and revisit your accomplishments. Examine the things that will make you happy at work. Your ultimate goal for this time spent should be to bring structure to your thoughts so you can realistically sculpt the type of search that will bring you a positive result: a great job.

### LOOK BEYOND THE PROFESSIONAL REQUIREMENTS

In developing your job search strategy, consider these things:

- Are you happiest in a large city or do you prefer a small town that has access to a large city? Is rural more your taste in living or do you prefer suburban or urban amenities?
- Do you want to stay close to family?
- Would you prefer working for a large company or a small, start-up firm?
- Do you like the beach and therefore need to live near the east or west coast or are you a climber who needs to be near the mountains?

- Do you have children and need to live in an area with a great education system?

These non-professional issues are generally as important as the work-related issues you will consider because you do want to have a life outside of work. Examine how you can integrate all parts of your life to create a balance between your work and personal time.

### THE NUTS AND BOLTS OF YOUR SEARCH

In beginning your job search process, choose a deadline for getting a new job. Pick a date four to six months out and then create a timeline and backtrack so that your search will begin immediately. Take a look at your planner and figure out when you can plan blocks of time to conduct your search. Ideally, this should be uninterrupted search time. It should include Internet search time, newspaper search time and information gathering time, and it would be best to focus on only the search process for as much of this time as possible; no phone calls, personal visits, sports, children, chores or work.

Here is a sample four-week timeline.

#### WEEK 1: PREPARE YOUR RESUME

Take the time to update your resume. Be sure it reflects your current skills. Most working adults do not review their resumes regularly; they usually look at it only when they have an interesting job prospect or when they are faced with a panic situation. When you update your resume, have a number of people review it for clarity, readability, content, spelling and grammar. Also, create both a long version and a short version, in order to accommodate various needs. A prospective employer may want to see your entire work history, for example, making the long version necessary. But you may find a potential employer at a networking breakfast or job fair who will only have time to scan a short overview version. It's best to be prepared for any circumstance.

Also, have copies of your resume ready to distribute at a moment's notice. Keep a supply of 9" x 12" envelopes and postage on hand. Take a sample package to the post office and weigh it. Then buy a roll of stamps to accommodate that size package and you will be prepared to mail your resume at all times, without having to make repeated trips to the post office to do so.

#### WEEK 2: ASSEMBLE YOUR REFERENCE LIST

Be sure you have an updated reference list ready for prospective employers. Contact your references and get their permission to list them. Be sure that it is not against their company's policy to give reference information. Choose people who can define your role and accomplishments on the job and can give related examples to illustrate their recommendations.

#### WEEK 3: IDENTIFY COMPANIES OF INTEREST

This will be the most time-consuming segment of your job search, as it is the most detailed. During this week, identify the companies and industries that match your interests, skills, location needs, and other preferences. Check company web sites for job listings and apply online, if that is the company policy. If the name of the Human Resources manager is not listed on the site, call the company and get that name, so you can send your resume and cover



**Summer/Fall 2002  
Telecommunications  
Short Courses**

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- **Engineering and Planning Telecommunications Local Loop Facilities**, May 20–23, 2002 in Madison, WI
- **Fundamentals of Wireless Data Communications** June 3–5, 2002 in Madison, WI
- **Traffic Engineering for Wireless Communication Systems**, June 18–20, 2002 in Madison, WI
- **Using the GSM Digital Wireless Interface** June 25–27, 2002 in Madison, WI
- **Electrical Grounding of Communications Systems**, August 5–7, 2002 in Madison, WI
- **Fundamentals of Data Communications**, August 12–14, 2002 in Madison, WI
- **Basic Telephony and Digital Switching**, September 24–27, 2002 in Madison, WI

For further information...

Web: <http://epdweb.engr.wisc.edu> or E-mail: [danbeck@engr.wisc.edu](mailto:danbeck@engr.wisc.edu)

College of Engineering Department of Engineering Professional Development

letter directly to him or her. Be diligent, focused, and determined to meet your "I've got a job!" deadline.

If you haven't already started one, put together a business card holder and use it to organize contacts you meet at job fairs, meetings, and networking sessions. Make notes on the backs of the cards with the date you met the people, whether you gave them a resume, and when you will follow up with them.

#### WEEK 4: DEVELOP COVER LETTER TEMPLATES AND AN ANSWERING MACHINE MESSAGE

Your cover letter may be your initial contact with employers. Develop a few cover letter "templates" based on the industries or interests you identified during week three. You'll then be able to personalize and customize them for each prospective employer. Books are available to help you write cover letters.

Also, while you are in an active job search, change your answering machine message. Take off the music, poetry, children singing, and other casual greetings. Replace them with a more professional greeting. It might help to repeat your name or phone number so callers can confirm that they have called the right place (they will likely be looking at your resume as they call).

Using a planned job search strategy will make the search process easier to handle. Don't get discouraged; job searching is hard work and results don't come overnight. But with a clear plan of action, results will come.

*Amina Sonnie is Career Experience Coordinator at the University of Arizona's College of Engineering in Tucson.*

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