

# A Multi-Facility User's Perspective

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**Center for Nanoscale Materials**

# Center for Nanoscale Materials

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Stefan Vajda (1)  
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Rene Nome (Postdoc)  
Xiaohua Wu (Postdoc)  
Jana Zaumseil (Postdoc) (2)  
Eva Stringer

## Nanobio Interfaces

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Elena Rozhkova  
Elena Shevchenko  
Eva Stringer

## Theory & Modeling

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## X-ray Imaging

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Seth Darling  
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Valentina Kutepova  
C. Suzanne Miller  
Leo Ocola  
Anirudha Sumant  
Alexandra Imre (Postdoc) (1)  
Stephen Li (Postdoc)  
Ming Lu (Postdoc)  
Rachel Mirelez

### Legend

(1) *Matrixed - Interdivisional Appointment*  
(2) *Named Postdoctoral Fellowship*  
(3) *Joint Appointment*

# Outline

- **What do university users of national facilities think about?**
- What makes a facility easier or harder to use?
  - Proposal review, scheduling, access, user education.
- What I have I learned from being on the UECs of the CNM and APS.

What do university users of national facilities think about?





# WISCONSIN

UNIVERSITY OF WISCONSIN-MADISON

## Facts

- Location:** Madison, Wisconsin  
**Founded:** 1848 (First class: February 1849)  
**Campus:** 935 acres (main campus)  
**Enrollment:** 42,041  
**Budget:** \$2,191,700,000 (2006-2007)  
**Chancellor:** John D. Wiley

|           |        |
|-----------|--------|
| Employees | 16,255 |
| Faculty   | 2,054  |

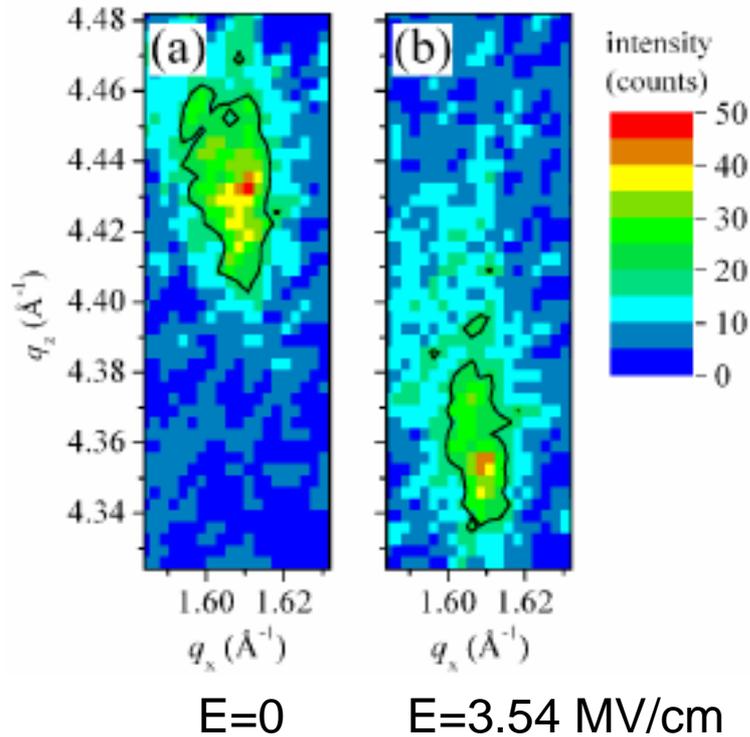
***On-Campus Institutions:*** Central facilities, federally funded research centers, graduate programs, national facilities, adjacent national laboratory.

## Expenditures

Research expenditures by source of funds (2005–2006)

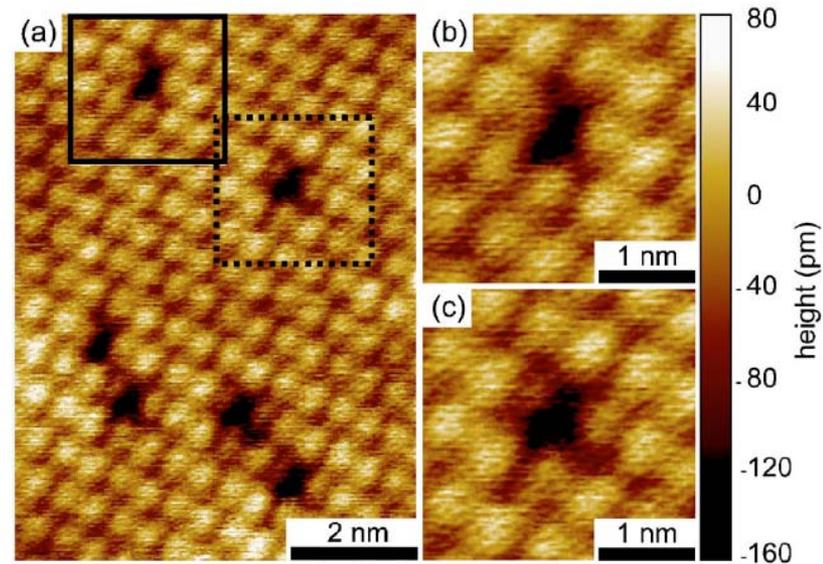
| Source                    | Amount (in millions of dollars) | % of total |
|---------------------------|---------------------------------|------------|
| Federal grants, contracts | 454.4                           | 64.6       |
| Gifts and endowments      | 162.7                           | 23.1       |
| Revolving funds           | 27.2                            | 3.9        |
| State taxes               | 58.9                            | 8.4        |
| <b>Total</b>              | <b>703.2</b>                    | <b>100</b> |

# Some examples from my group



Grigoriev *et al.* Phys. Rev. Lett. 2008

**X-ray scattering and  
microscopy**



Seo *et al.* Appl. Phys. Lett. 2008

**Organic semiconductor  
interfaces**

- The two motives for my group are access to unique facilities and the ability to collaborate with scientists who live in the national lab culture.
- Some university people will use facilities because they form a large part of the research in their groups. (For example: “x-ray scatters”, “neutron scatters,” etc.)
- For most faculty, though, facilities need to be as close as possible, cheap in terms of incremental costs to the research, and easy for students to use – ideally without day-to-day faculty participation.

# Outline

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- **What makes a facility easier or harder to use?**
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- What I have I learned from being on the UECs of the CNM and APS.

# General User Proposal Preparation

- It needs to be as easy as possible to submit a user proposals. It should be easy to see what the facility really wants.
- Most online systems that I've seen are relatively similar in terms of the type of information required.

# Proposal Review

- Faculty are used to writing proposals to raise support for their research. And most like the idea of peer review very much.

## ***Some specific comments:***

- The feedback is often buried in the emails or online and is not authoritative. Most of the time the response amounts to “yes” or “no.” It would be nice to have the feedback from the reviewers presented more prominently. This will also improve the quality of the reviews.
- Negative decisions need to be explained. Especially for new users.
- I personally like the systems where there are many anonymous reviewers rather than panels.

# Access, friendliness

- University research is largely driven by graduate students and postdoctoral researchers – and even some undergraduates.
- Many times students are still learning how to work in a professional environment. They often don't have the day-to-day skills that professional scientists (in safety, presentation skills, time management) have so facilities need to be educational institutions in some sense.
- University issues in safety, access to closed facilities, scheduling times.
- Facilities vary greatly in their needs, and their environment. People notice things like computer access and ease of training.

# Outline

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- What makes a facility easier or harder to use?
  - Proposal review, scheduling, access, user education.
- **What I have I learned from being on the UECs of the CNM and APS.**

# What have I learned from participating in user organizations?

- Three day-to-day functions seem to be important
  - 1) Providing feedback to the management.
  - 2) Organizing the users meeting.
  - 3) Nominating the future members of the executive committee for elections.
- It's very difficult to get information to and from users and potential users. Surveys and other interactions are more useful to facilities than users think.
- Sometimes an hour's worth of work at the right time can be very important.

# CNM Users Organization

## User Executive Committee

The User Executive Committee (UEC) serves as an advocacy group for the Center for Nanoscale Materials (CNM) and its user community, provides advice to the Director on matters affecting the user community, and ensures good communication between the CNM user community and CNM management. The CNM UEC is also responsible for organizing the scientific content of the annual Users Meetings.

| <b>Name</b>                    | <b>Position and Institution</b>   | <b>E-Mail</b>                 | <b>Date Appointed or Elected</b> |
|--------------------------------|---|-------------------------------|----------------------------------|
| Paul G. Evans, Chair           | Assistant Professor<br>Materials Science and Engineering<br>University of Wisconsin                                       | evans@engr.wisc.edu           | 2006                             |
| Nicolaie (Mike) Moldovan       | MEMS Lead Scientist<br>Advanced Diamond Technologies, Inc.  | moldovan@thindiamond.com      | 2006                             |
| Gayle E. Woloschak, Vice-Chair | Professor<br>Department of Radiology<br>The Feinberg School of Medicine<br>Northwestern University                        | g-woloschak @northwestern.edu | 2006                             |
| Vitali Metlushko               | Associate Professor<br>Electrical and Computer Engineering<br>College of Engineering<br>University of Illinois at Chicago | vmetlush@ece.uic.edu          | 2006                             |
| Dillon Fong                    | Assistant Materials Scientist<br>Materials Science Division<br>Argonne National Laboratory                                | fong@anl.gov                  | 2007                             |
| Teri Odom                      | Assistant Professor<br>Department of Chemistry<br>Northwestern University   | todom@northwestern.edu        | 2007                             |

# Elections

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- April 4: poster abstracts  
- April 11: non-U.S. registration  
- April 18: housing  
- April 25: registration

Elections  
- APS  
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## CNM Users Executive Committee Elections

**[ELECTIONS ARE NOW OPEN - CLICK HERE FOR BALLOT](#)**

The Center for Nanoscale Materials (CNM) [Users Executive Committee \(UEC\)](#) serves as an advocacy group for the CNM and its user community, provides advice to the Director on matters affecting the user community, and assures good communication between the CNM user community and CNM management. The CNM UEC is responsible for organizing the scientific content of the annual Users Meetings. For all of these reasons, it is imperative that all segments of the CNM community be represented on the CNM UEC.

In conjunction with the Users Meeting, the CNM Users Organization is electing new representatives to its Executive Committee. Online voting will close on Wednesday, May 7, at 10:30 a.m. Chicago time. The results will be announced at the conclusion of the Wednesday Science Session. All badged CNM users are eligible to vote. Computers are available in the Bldg 401 Atrium for on-site voting. The following CNM Users have been nominated by the CNM UEC for the upcoming election:

1. [Gregory Wurtz](#), Department of Chemistry and Physics, University of North Florida
2. [Yi Ji](#), Department of Physics and Astronomy, University of Delaware
3. [Junhong Chen](#), Department of Mechanical Engineering, University of Wisconsin-Milwaukee
4. [Venkat Chandrasekhar](#), Physics and Astronomy Department, Northwestern University

**(This benefits from joint CNM/APS infrastructure.)**

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Elections  
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## Highlights

[Sunday, May 4](#)

[Theatre premiere: "Bernal's Picasso"](#)  
[Exhibitor expo & reception](#)

[Monday, May 5](#)

[Joint opening session](#)  
[APS science session](#)  
[APS poster session & reception](#)  
[Reception -- Sub-Angstrom Microscopy and Microanalysis Facility](#)

[Tuesday, May 6](#)

[Workshops 1 - 4](#)  
[Facility tours](#)  
[Banquet, Shedd Aquarium](#)

[Wednesday,  
May 7](#)

[CNM plenary & science sessions](#)  
[EMC science session](#)  
[Argonne Scattering, Imaging, and Spectroscopy Institute](#)  
[Workshops 5 - 6](#)  
[CNM & EMC poster session & reception](#)  
[APS Partner User Council](#)

[Thursday, May 8](#)

[Workshops 5 - 6, continued](#)  
[Workshops 7 - 9](#)  
[Workshop 10 -11](#)

[Friday, May 9](#)

[CNM short courses](#)  
[Satellite workshops](#)

# Science

- Opportunities in science are what pulls people to these facilities. The perspective of how to get the most science done with whatever resources are available helps solve conflicts.
- Sometimes local competition to do a better job is good rather than bad.