

# NCAR Fellows News

## APRIL EVENTS

### April 6-8: Thompson Lecture Series with Gavin Schmidt

See [www.asp.ucar.edu](http://www.asp.ucar.edu) for more information

### April 13: Research Reviews

11:00 am, Live: FL1-2133,  
ML Gil Finley (Tower A Penthouse)  
Vanessa Schweizer and Zheng-song Cao

### April 14: Fellows

#### Association Happy Hour

More details will follow by email.

### April 27: Research Reviews

11:00 am, Live: FL3-2072,  
ML Gil Finley (Tower A Penthouse)  
Katie Dickinson and Wei-Yu Chang

Save the Date:  
The Postdoctoral Association of Colorado presents the

### Postdoc Research Event, June 15, 2011, 3-6 pm

Abstract Submission will run from April 15—May 6th. More information will be sent by email, or you can check the PAC website at [www.colorado.edu/PAC](http://www.colorado.edu/PAC)



The National Center for Atmospheric Research is sponsored by the National Science Foundation

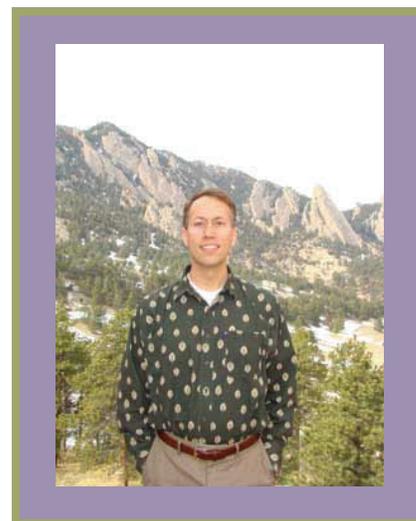
## SOARS and ASP, Coming Full Circle by Jonathan Vigh

My current ASP postdoctoral appointment is not my first NCAR experience --- I participated as a protege in the Significant Opportunities and Atmospheric Science (SOARS) Program back in 1999 and 2000.

SOARS is dedicated to broadening participation in the atmospheric sciences from groups which are currently underrepresented. While the keystone of SOARS is up to 4 years of summer research experience, in which proteges are mentored by top scientists in a supportive learning community, the program also provides support for proteges to attend conferences as well as a graduate fellowship. Although I am a registered member of the Seneca Nation of Indians, one of Haudenosaunee ("People of the Longhouse", commonly known as the Iroquois) tribes in upstate New York, I also have European heritage and did not grow up in a disadvantaged environ-

ment. I would describe my family as fully "assimilated", which of course was a goal of U.S. government policy towards Native Americans from early on in this country's history. Nevertheless, I was encouraged to apply to SOARS by my undergraduate counselor at Penn State University and was very excited to receive a phone call from Rick Anthes himself to inform me that I had been selected as a SOARS protege.

My first summer at NCAR was a lot like drinking water from a fire hose. I worked in CGD on a project to diagnose sources of error in the Climate System Model's (CSM) shallow cloud parameterization. In order to compare the CSM output to the remote sensing and precipitation sets, I had to learn NCAR Command Language (NCL) as quickly



as possible. In between my research, I attended weekly writing workshops and other enriching seminars which taught me practical writing and presentation skills beyond what is typically taught in college classrooms. By far the most helpful aspect of the SOARS research experience was the one-on-one mentoring of my science research mentor, Joel Norris, who was himself an ASP postdoc at the time. He spent many hours helping me with the programming challenges, mentoring me in the directedness of scientific investigation, giving me career advice, and arranging for me to meet with promi-

*Continued Page 2*

## Full Circle (continued)

ment scientists like Warren Washington. Together with the patient help of many great CISL people, including Mary Haley, Sylvia Murphy, and Dennis Shea, my project took shape.

I would be remiss if I did not talk about another aspect of the SOARS experience --- the fantastic and diverse community of other SOARS proteges. Coming from all different backgrounds and regions of the country, we were a true community. We often left our apartment doors open for anyone to stop by, shared delicious food at potlucks, and even went on an exciting storm chase to Nebraska where I saw my first tornado! Looking back, I realize how enriching it was for me to be a part of this community: it helped me gain a much greater appreciation of the benefits of diversity --- of how each person brings in their own unique perspectives and experiences.

SOARS also challenged me to find out more about my own heritage when I was invited by Thomas Windham to participate in a co-panel discussion at the Native American Studies Annual Meeting in Houston, TX in Feb 2000. This panel, which consisted of Tom and several of the SOARS proteges from Native American backgrounds, was tasked with a discussion of how Native Americans in science operate in two different worlds, and how traditional knowledge

and practice influences and benefits science. To prepare for my portion of the discussion, I talked with an elder from the Oneida tribe to learn more about the Iroquois' traditional views of the world. She shared with me many stories and legends, especially those which dealt with the creation of the world by the Great Spirit. I compared and contrasted these stories with my own religious upbringing in a Protestant church. Participating in the co-panel discussion gave me much to think about as I considered the clash of worldviews on the topic of origins, but I also realized that both science and traditional knowledge have areas of common ground, such as stewardship for the environment.

My involvement with SOARS did not end after I received my Masters, which marks the completion of the program for a protege: I was soon invited to serve on the SOARS Steering Committee. This experience gave me a different look at the program -- now I was on the other side of the protege selection process! During my 3 years on the steering committee, I had the privilege of seeing SOARS expand its diversity focus to include students with physical disabilities and those from lesbian, gay, bisexual or



*Shuyi Chen (University of Miami), Diamilet Perez-Betancourt, and Jonathan*

transgender (LGBT) backgrounds. It was always difficult to weigh all the factors in selecting proteges from the pool of very good candidates, but I was always impressed with the tremendous group of proteges and their accomplishments each year. Eventually, I left the committee to focus on finishing my PhD, which I finally completed in early 2010. In the meantime, I was accepted as a Fellow in the ASP program and yet again had opportunity to be involved with SOARS, this time as a research mentor.

Being on the other side of the protege-mentor relationship for the first time quickly gave me an appreciation for the considerable amount of time and energy that mentors contribute to SOARS, but also on how rewarding this experience can be. It was with a bit of nervousness and trepidation that I met my protege, Diamilet

Perez-Betancourt, at the SOARS ice breaker in June 2010. She was very personable and enthusiastic about science. Being from Puerto Rico, she had a keen interest in hurricanes, so together with her and co-science mentor Shuyi Chen, we planned out an ambitious project to examine cases of failed eye formation in Atlantic hurricanes. Since Diamilet was going to use a data set which I had prepared during my dissertation work, I had the privilege of introducing her to NCL. She quickly spun up on NCL and incorporated her own analysis of environmental vertical wind shear using ASPEN and Matlab, overcoming considerable challenges along the way. Sometimes I struggled to keep a step ahead of her to ensure that she had the data and resources she would need. We spent hours discussing the intricacies of hurricanes, as well as career plans. Seeing her

## Full Circle (continued)

present her work at the end-of-summer colloquium and poster session was very rewarding --- I felt that I had come full circle.

Intertwined in my SOARS experience has been an ever-increasing appreciation for the benefits of diversity. Involving members from diverse communities directly benefits them, as they reap the considerable advantages and joys of participating in science, but also benefits science itself, by the broadening influences brought by the unique perspectives of the participants. However, diversity provides another considerable benefit to science --- these people can then act as bridges to connect the science back to their own communities.

This synergistic community-focused view of the role of diversity in sci-

ence suggests a further opportunity. The United States is currently polarized along religious and political fault lines. It has now been recognized that science communication efforts are largely failing on the core issue of climate change: a Gallup poll in Oct 2009 showed that just 36% of U.S. citizens agreed that global temperatures are rising due to human activity. This was a decline from 47% the previous year. Indeed, very recently, there have even been calls by a vocal subset of Congressional lawmakers to completely defund climate science. Meanwhile, other scientific disciplines are starting to recognize that by and large, the practitioners in their fields come from largely a similar worldview (i.e., a scientific worldview) of shared values that sometimes

blinds the group to other perspectives. This "tribal" effect happens in all tight-knit communities of course, not just scientific ones. With the trend of fracturing media sources, which tends to reinforce a person's biases, the perceived gulf between science and many of conservative and religious groups is widening. Perhaps it is time for atmospheric science to actively seek to increase religious and political diversity amongst its participants by bringing in more participants from religious or conservative backgrounds which are currently under-represented (severely so in some cases) in the field. The goal is not to try to change the views of such persons, but rather to have these persons serve as ambassadors of science back to their "home" groups. In the

process, these individuals will not only be able to communicate science more effectively to these communities, but they will also be better able to engage these groups and link them more closely to the scientific endeavor. By also serving as a conduit to bring new scientific problems from these communities, perhaps groups which have long been viewed as "anti-science" will increasingly see greater value in science. Science will benefit the most when it includes the most diverse participation of its members, and is connected to the broadest array of segments of society. When we hear broad, bipartisan calls to raise science funding, we will know that our diversity efforts have truly come full circle.

## Spring Thompson Lecture Series with Dr. Gavin Schmidt



Dr. Gavin Schmidt will be at NCAR from 4-8 April for the 2011 Spring Thompson Lecture Series.

During the series, he will give seminars, meet one-on-one with participants with fellows in both scientific and career roundtable discussions, and join the fellows for a potluck.

Dr. Schmidt is a well-known climate scientist at NASA Goddard Institute for Space Studies. He works mainly on coupling the atmosphere and ocean systems in climate models, and modeling both the recent and more

distant (paleo) climate. Dr. Schmidt is also very active in media outreach, and is a contributing editor of the well-known [www.realclimate.org](http://www.realclimate.org) blog. He has published in top journals such as Science, Nature, and PNAS, and was listed as one of Scientific American's "Top 50 Research Leaders" of the year.

Dr. Schmidt will be giving two lectures: A general interest lecture enti-

tled "*Using Earth System Models to provide better policy-relevant information*" and a scientific lecture entitled "*Can we use paleo-climate to enhance the credibility of future projections?*" Don't miss this opportunity!

For more details, please see [www.asp.ucar.edu](http://www.asp.ucar.edu).