



The CEDAR Post

February 1998

Volume 33

CEDAR PROPOSALS FOR FY 1999

Deadline: 1 May 1998

The deadline for submission of proposals to the NSF for CEDAR funding in FY99 is 1 May 1998. Please consult the most recent issue of the NSF Grant Proposal Guide (NSF98-2), which can be found on the NSF Web home page (www.nsf.gov), for information on proposal preparation and submission. Proposals for CEDAR post-doctoral research appointments are also due on 1 May 1998, and guidelines for these proposals are given on p. 2 of this newsletter.

Proposals submitted to this round of the CEDAR competition should emphasize the CEDAR Phase III Program objectives. As in the past, encouragement is given to the use of the CEDAR clusters and chains of instruments that serve the community. If you do not have a copy of the Phase III report, send a request to kathynot@bu.edu.

In addition to proposals supporting CEDAR Phase III, proposals are also encouraged that are aimed at preparations for the CEDAR-TIMED collaborative opportunity. During the past few years, various interactions have stressed the scientific value of bringing together ground-based measurements and the TIMED satellite observations, and this initial opportunity within the CEDAR competition is aimed at fulfilling these needs. An article on the status and plans of the TIMED satellite program was presented in the December 1997 CEDAR newsletter. The anticipated funding plan for the joint NSF-NASA support of space and ground-based studies of the thermosphere, ionosphere, and mesosphere over the next five years was also given in that report.

As in previous years, the total NSF funding level for the FY99 CEDAR competition will be about \$1M with \$0.5M allocated for proposals that address the CEDAR-TIMED collaborative theme. It is expected that five to ten one-year awards will be made in FY99 for CEDAR-TIMED related projects.

Proposals submitted within the CEDAR-TIMED theme for this preparatory phase can address topics such as: needed improvements of ground-based instrumentation, enhancement of data products or data delivery, or preparation and augmentation of models, etc. The proposals must justify and demonstrate how the preparatory work will help meet the goals of the CEDAR-TIMED science collaboration. Selection of the awards will be based on the potential for the proposed activity to contribute to the scientific efforts identified for the CEDAR-TIMED collaboration. Such efforts that have been discussed to date at CEDAR-TIMED workshops can be found at: sd-www.jhuapl.edu/TIMED/News. In addition, a special workshop is planned to be held on March 25-27, 1998 in Baltimore (see announcement on p. 3) to provide an opportunity for members of the community to interact and to prepare their plans for the FY99 competition and follow-on competitions.

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NSF/CEDAR POST-DOCTORAL PROPOSALS**Deadline: 1 May 1998**

The NSF/CEDAR Postdoctoral Program provides grants to recent Ph.D. recipients to conduct middle and upper atmosphere research at a host institution. The goal of the CEDAR Postdoctoral Program is to provide outstanding recent Ph.D. recipients an opportunity to build upon capabilities demonstrated in the dissertation project while enabling them to explore new research directions and to further their professional growth. It also provides a means to enrich the research activities of the host institution.

Two post-doctoral awards are made each year. As specified in NSF's Dear Colleague Letter dated April 10, 1996 (NSF96-84), post-doctoral awards will be for two years at a stipend level of \$36,000 per year. An additional amount of \$9,000 will be provided toward employee benefits and institutional overhead. Although not a review criterion, if cost-sharing possibilities exist at the host institution (through an existing NSF grant, for example), this should be mentioned in a cover letter accompanying the proposal.

Post-doctoral proposals must conform to the format for regular NSF proposals except that the project descriptions are to be 3 pages or less. Either the post-doctoral candidate or his/her advisor may be the principal investigator, but the proposals must be submitted by the host institution. Information on preparing the project description is given below. In addition to the standard NSF proposal material, post-doctoral proposals must include the following:

- A letter from the host institution indicating its interest in and commitment to the proposed project.
- An abstract of the candidate's doctoral thesis.
- Two letters of recommendation. (These can either be included in the proposal package addressed to NSF's Proposal Processing Unit, or sent directly to the Program Office at the address shown below. In the latter case, the proposal should indicate the names of those sending recommendations under separate cover.)
- A transcript of course work.
- An up-to-date resumé.

INFORMATION ON PREPARING THE DESCRIPTION OF PROPOSED RESEARCH

The single most important factor in writing a successful NSF/CEDAR post-doctoral proposal is the quality of the science being proposed. The research project description should:

1. Clearly identify the science question or area to be investigated.
2. Indicate why it is important and provide some background on what has been done thus far.
3. Describe the method to be used to address the science question/area, what will be done and with what resources, and what instruments or models or data bases will be used. Brief descriptions of these instruments, models, or data bases should be included, as well as letters of support to show that they are accessible.
4. Demonstrate scientific productivity, i.e. show that the result of the analysis, method, or investigation will yield the information needed to answer the science question identified in step 1.
5. Provide a rough timeline describing what activities will be carried out and when.

It is expected that the post-doctoral candidate will write the project description. However, it would be extremely beneficial to request critical reading of the proposal by one's Ph.D. advisor and by scientists at the host institution before submission to NSF.

INFORMATION ON PROPOSAL SUBMISSION

Proposals should be submitted to the Proposal Processing Unit at NSF with 'Aeronomy Program' indicated in the top left hand box of the NSF cover page. In addition, the title of the proposal should be preceded by the words 'CEDAR Post-doc'. Letters of recommendation may be sent directly to:

Dr. Sunanda Basu
Director, Aeronomy Program
National Science Foundation
4201 Wilson Blvd., Suite 775
Arlington, VA 22230

FIRST ANNOUNCEMENT FOR THE 1998 TIMED-CEDAR WORKSHOP**March 25-27, 1998****Turf Valley Hotel and Conference Resorts, Ellicott City, MD.**

The CEDAR and TIMED communities have interacted closely over the past two years. Now that the TIMED launch is scheduled for May 2000, it is time to begin the detailed planning of the ground-based contributions to TIMED and the scientific benefits afforded by combined satellite and ground-based measurements. The main objective of the workshop will be to enhance the scientific yield from the NASA TIMED satellite program by fostering the TIMED/CEDAR collaboration. The workshop will also provide an opportunity for researchers to develop collaborative teams to address TIMED/CEDAR science efforts. The core scientific objectives of TIMED are to explore the basic state of the mesosphere and lower thermosphere (MLT) region between 60 - 180km and study the energetics responsible for the dynamical, thermal, and compositional changes experienced in the MLT region. Information about the TIMED instruments, the spacecraft, and the complete science objectives can be found at URL: <http://sd-www.jhuapl.edu/TIMED>.

The December 1997 issue of the CEDAR Post describes the ongoing TIMED/CEDAR collaboration and the planned funding profile from both NASA and NSF. Reports from the working group leaders of the first CEDAR/TIMED workshop held on April 1-2, 1997, at Turf Valley, as well as the TIMED SWG report written by Forbes, Salah, and Meriwether, can also be found through the TIMED web page. These reports summarize the progress made thus far in formulating these plans, but more work is essential to complete the framework.

The second TIMED/CEDAR workshop is officially scheduled for two days: March 25-26, 1998. An additional third day, March 27, is allocated for those who would like to stay and discuss other issues related to the collaborative efforts (e.g. teaming arrangements and individual discussions). TIMED science team members, including the instrument teams, will stay to answer additional questions if needed. The workshop registration form and preliminary agenda will be available through mail and the Web in early February.

Sam Yee (JHU/APL), John Meriwether (Clemson University), Jeff Thayer (SRII)

CEDAR DATA BASE PLOTS AVAILABLE ON THE WEB

We have completed making summary plots of all the data in the CEDAR Data Base, along with links to other sites. There are generic plots for different data types. All image plots were made by binning data in height and time for elevation angles above 60 degrees. We make special mention of links to sites with other data plots.

The plots are available via the web at: <http://www.hao.ucar.edu/public/research/tiso/cedar/cedar.html>
Click on the location name on the image map to access the plots. A few indices and model plots are available below this map, but not all.

We decided to make the summary plots publicly available via the web because only the pictures can be accessed, not the values. The web access to the data values with checking for the Rules of the Road will be ready in June, we hope.

Thanks to all those who contributed to the 9 GB of data in the CEDAR Data Base!

Barbara Emery (NCAR/HAO)

NOMINATIONS INVITED FOR THE 1998 CEDAR PRIZE LECTURE**Deadline: 15 April 1998**

The CEDAR Prize Lecture was established in 1989 to recognize outstanding scientific contributions to the CEDAR Program. Selection is based upon a research paper either presented, submitted, or published during the past year (1 May 1997 to present). The candidate will present a special 30-minute lecture at the 1998 CEDAR Meeting. Previous CEDAR Prize lecturers are:

- 1989 - Art Richmond (NCAR)
Assimilative Mapping of Ionospheric Electrodynamics.
- 1990 - Michael Mendillo (Boston University)
The Discovery of a Sodium Magneto-Nebula around Jupiter.
- 1991 - Craig Heinselman (SRI International)
Sondrestrom MUSCOX - Capabilities and New Results.
- 1992 - Colin Hines (Arecibo Observatory)
The Doppler Spreading Theory of Gravity Wave Spectra.
- 1993 - John Cho (Cornell University & Arecibo Observatory)
*Radar Scattering from the Coldest Place in our Atmosphere:
Polar Mesosphere Summer Echoes.*
- 1994 - Raymond Roble (NCAR)
*Modeling the Circulation, Temperature, and Compositional Structure
of the Upper Atmosphere (30-500 km).*
- 1995 - David Fritts (University of Colorado)
Modeling of Gravity Wave and Instability Processes in the Middle Atmosphere.
- 1996 - Chet Gardner (University of Illinois)
Results from the ALOHA/ANLC-93 Campaigns
- 1997 - Bela Fejer (Utah State University)
Multi-instrument Studies of Ionospheric Electrodynamics.

Nominations are solicited from the community for the 1998 CEDAR Prize lecture. Nominations should include a brief paragraph explaining the contribution of the nominee and its importance. Reference to article or presentation should be provided, if available. Selection will be made by the CEDAR Science Steering Committee. Nominations should be made by 15 April 1998, via email to Joe Salah, jsalah@newton.haystack.edu.

CEDAR Science Steering Committee

CEDAR/GEM PERSPECTIVES ON MODELS FOR THE NEW MILLENNIUM

A CEDAR/GEM Workshop series is planned for June 1998. This year the joint workshop will be a two-part series in an effort to engage strong participation from both communities. Part 1 will occur during the CEDAR Workshop and part 2 will occur during the GEM Workshop the following week. Everyone is invited to participate in both sessions.

The goals of the workshop series are to plan for a Chapman Conference on this topic and to develop a proposal to submit to AGU. The focus will be the identification of challenges anticipated in the further development of large-scale numerical models, including assimilative models, of the magnetosphere, ionosphere, thermosphere, and middle atmosphere. During both sessions a small number of invited speakers will briefly overview the state-of-the-art in modelling these regimes and identify key areas that should be addressed to motivate workshop discussion. The remainder of the sessions will involve all participants who should come prepared to address any relevant topic. These may involve, but are not limited to, scientific objectives, observational constraints on models, parameterization of sub-grid-scale effects, the evolution of computer architectures, and emerging numerical techniques. Please note: this workshop is aimed at the entire community. In particular, the identification of challenges emerging from the observational community are critical to achieving the goals of the workshop series.

Maura Hagan (NCAR/HAO), Rod Heelis (Univ. Texas, Dallas), Joe She (Colorado State Univ.)

CALL FOR WORKSHOPS
Deadline: April 17, 1998

If you wish to host a workshop at the 1998 CEDAR Meeting, please send notification to the workshop conveners, c/o Michael Mendillo (mendillo@buasta.bu.edu) on or before **April 17**. **Please note that this is a firm deadline.**

This year, in order to accommodate the anticipated large number of workshop requests and to minimize overlap on related topics, emphasis will be on 2-hour workshop formats. However, some 4-hour workshops, such as the planned lidar review workshop, will also be considered. Please submit the following:

- a title and a short summary of the proposed workshop,
- any special requests, e.g. to avoid scheduling conflicts with certain related workshops,
- an estimate of the number of expected attendees,
- type of workshop proposed, e.g. campaign planning, special topics, or mature science.

Workshop leaders are expected to give an overview at the beginning of the workshop and to introduce the key people involved - both students and non-students. A summary at the end of the workshop is also helpful to give the students a clear perspective. You will be informed of the schedule for your workshop in mid-May. At that time, a more detailed description of the workshop including an agenda should be submitted to Barbara Emery (emery@ucar.edu) **by May 25** for distribution to participants at the meeting. This description will also be put on the CEDAR web page. Finally, please make notes during the workshop as a quarter page summary of each workshop will be printed in the October 1998 CEDAR Post to provide closure.

Michael Mendillo (Boston University), Michael Taylor (Utah State), Michael Sulzer (NAIC /Arecibo)

CALL FOR POSTERS
Deadline: 29 May 1998

A highlight of the annual CEDAR workshop is the poster session, which provides a structured forum for presentations in all areas of CEDAR science. The poster session can regularly be counted on to generate a great deal of interest for presenters and in particular permits students to advertise major accomplishments in their research to a broad audience. Experience has shown that the poster session offers perhaps the best opportunity of the workshop for students and advisors from different institutions to meet and form professional, sometimes cross-disciplinary ties.

We therefore invite poster presentations for the upcoming CEDAR workshop and particularly encourage students to participate. The poster session this year will be held in the Glen Miller Ballroom in the University Memorial Center (UMC) on Tuesday, June 9 between 1:30-5:30 PM. Presenters should submit the author list and title of their poster and indicate whether the first author is a student. They may do so over the World Wide Web by accessing the URL <http://landau.phys.clemson.edu/cedar.html> (the preferred method), by sending e-mail to daveh@vlasov.phys.clemson.edu, or by faxing the information to Dave Hysell at 864-656-0805 by May 29, 1998. As usual, posters must be confined to a size of 4x4'. They may be set up after 9 AM on the day of the session and should be taken down at the end of the session, or before 10 PM. Posters presented by students will be entered into a competition for which prizes will be awarded.

In previous years, many presenters have bemoaned the absence of an opportunity to browse the posters presented by others. This year, we therefore suggest that presenters with last names in the range A-G do their browsing between 1:30-2:30, in the range H-P between 2:30-3:30, and in the range Q-Z between 3:30-4:30. All presenters should then try to be present at their posters for the final hour of the session.

Dave Hysell (Clemson University)

COMMUNICATING WITH ONE'S PEERS***Student Workshop*****Sunday June 7, 1998**

Communication is one of the essential skills needed to succeed in both academia and industry. Last year's student workshop emphasized the importance of communicating with non-specialists which included the public and funding agencies. In order to expand on last year's topic, the 1998 student workshop at the CEDAR meeting will concentrate on "*communicating with one's peers*." We will focus on 3 forums in which interaction occurs between people with common interests but different areas of expertise.

An important aspect of communication is being able to introduce and describe one's work succinctly to other scientists or students. Therefore, back by popular demand, Sunday's workshop will start with a brief overview of some of the topics which will be discussed at this year's workshop. This may include brief introductions of the geophysical phenomena that CEDAR scientists are studying and modeling, the instrumentation used to measure these phenomena, data analysis issues, and NSF programs such as the Polar Cap Observatory. We are planning for each introduction to be presented by a graduate student or possibly a recent graduate.

Students and scientists are also expected to present their work in more formal situations. Therefore, the second part of Sunday's workshop will focus on presenting one's work at conferences and publishing articles in journals. Topics for invited speakers (who have not been finalized) may include effective techniques used to convey information to a given audience, how to organize one's thoughts for a presentation or paper, and what steps are associated with the peer review process.

Finally, because a significant amount of information is exchanged during informal situations, we will provide a forum in which to facilitate impromptu discussions. Weather permitting, we are planning to have an evening social outside, preferably at a local mountain park, in which students will be given a chance to network and meet each other prior to the start of the week's planned events. In addition, a box meal will be provided. We would like to strongly encourage recent graduates to participate and possibly discuss their work and views on life after the university.

Students, recent graduates, and CEDAR scientists who are interested in giving a 10-15 min introductory talk or in leading a discussion should contact Julie Chang at changj@colorado.edu.

Julie Chang (University of Colorado)

1998 CEDAR MEETING
University of Colorado, Boulder
June 7-12, 1998
Preliminary Agenda

The following describes the general structure of the planned agenda for the 1998 CEDAR meeting at the University of Colorado. A final agenda will be distributed via email prior to the meeting, when all speakers and topics are identified. Four tutorials are confirmed: *Polar Aeronomy* by Timothy Fuller-Rowell (Space Environment Center, NOAA), *Equatorial Aeronomy* by Michael Mendillo (Boston University), *Long-Term Variability/Global Change in the Middle & Lower Atmosphere* by Guy Brasseur (NCAR), and *Coronal Mass Ejections* by Art Hundhausen (NCAR). The meeting will also cover recent science highlights and program reports of interest to the community, such as TIMED, SCOSTEP activities and NSF and NASA opportunities, etc.. We are also aiming at preserving a workshop type environment at the meeting to allow time for active interactions amongst the participants.

Members of the CSSC who are developing plans for the CEDAR meeting are:

General agenda:	J. Salah, B. Emery
Tutorials, science highlights	M. Hagan, R. Heelis, J. She
Workshops	M. Mendillo, M. Sulzer, M. Taylor
Posters	D. Hysell
Program reports	M. Hickey, J. Salah
Student Session	J. Chang

If you have an input, please contact any of the above at the addresses listed on page 10 of this newsletter.

The plenary sessions will be held in Math-100, workshops in Math-100 and in Engineering Center. Parking in Lot 436 east of the Engineering Center. The reception/poster session will be Tuesday, June 9 afternoon in the Glenn Miller Ballroom, University Memorial Center (UMC). The student workshop is in the UMC Forum room on Sunday June 7.

Sunday June 7 (UMC Forum)

Student Workshop: Communicating with One's Peers

(Non-students welcome)

10:00-12:00	Overviews of CEDAR meeting topics
12:00-01:30	Lunch at UMC
01:30-04:00	Making better presentations
~05:00	Bus leaves Williams Village for mountain park (box dinner included)
~05:00-09:00	Social at mountain park for students and recent graduates
~09:00	Bus leaves park for Williams Village

Monday June 8 (AM: Math 100)

08:30-08:50	Welcome: CSSC, NSF, CU, HAO
08:50-09:15	Introductions of Post-docs, students
09:15-10:00	CEDAR Prize Lecture
10:00-10:30	Break
10:30-11:15	Program Reports: CEDAR, PCO (TBD)
11:15-11:30	Workshop guidelines
11:30-11:45	Workshop outlines
11:45-01:00	Lunch
01:00-05:30	Workshops in Eng.Center and Math 100
03:05-03:25	Break outside Math 100

Tuesday June 9 (AM: Math 100)

08:30-09:30	Tutorial #1
09:30-10:00	Program Reports: TIMED (TBD)
10:00-10:30	Break
10:30-11:10	Science Highlights
11:10-11:50	Data base status and plans
11:50-12:00	Workshop outlines
12:00-01:00	Lunch
01:00-01:30	Informal Meetings
01:30-05:30	Poster Session/reception at UMC.
06:15-07:00	Bus: Williams Village-Butterfly Pavillion
07:00-09:00	Butterfly Pavillion & Insect Center tour
09:00-09:45	Bus: Butterfly Pavillion - Williams Village

Wednesday June 10 (AM: Math 100)

08:30-09:30	Tutorial #2
09:30-10:00	Program Reports
10:00-10:30	Break
10:30-11:10	Science Highlights
11:10-11:40	Post-Doc Reports
11:40-11:50	Workshop outlines
11:50-01:00	Lunch
01:00-05:30	Workshops in Eng.Center and Math 100
03:05-03:25	Break outside Math 100
06:00-06:15	Bus: Williams Village to NCAR Mesa
06:15-08:00	Buffet: Tree Plaza at the NCAR Mesa
08:00	Bus: NCAR Mesa to Williams Village

Thursday June 11 (AM: Math 100)

08:30-09:30	Tutorial #3
09:30-10:00	Program Reports
10:00-10:30	Break
10:30-11:10	Science Highlights
11:10-11:30	Program Reports
11:30-11:45	Workshop outlines
11:45-01:00	Lunch
01:00-05:30	Workshops in Eng.Center and Math 100
03:05-03:25	Break outside Math 100

Friday June 12 (AM: Math 100)

08:30-09:30	Tutorial #4
09:30-10:10	NSF and NASA program opportunities
10:10-10:40	Break
10:40-11:10	Science Highlights
11:10-11:25	Workshop Outlines
11:25-11:45	CSSC, NSF comments
11:45-01:00	Lunch
01:00-05:30	Workshops in Eng.Center and Math 100
03:05-03:25	Break outside Math 100

1998 ANNUAL CEDAR MEETING PLANS

The 1998 CEDAR Workshop plans, information and forms are also available on the web at the URL address: <http://www.hao.ucar.edu/public/research/tiso/cedar/cedar.html> by clicking on CEDAR Workshop (1998). The full address is: <http://www.hao.ucar.edu/public/research/tiso/cedar/98/conf98.html>. The registration forms can be filled in and submitted via the web.

Deadlines to be remember for the meeting are:

- **April 15:** Deadline for nominations for the CEDAR Prize Lecture
Send nominations to J. Salah (jsalah@newton.haystack.edu)
- **April 17:** Workshop convenors send workshop requests and plans to:
Michael Mendillo (mendillo@buasta.bu.edu). See instructions in newsletter.
- **April 17:** Students send in their registration forms and application for funds with biographical information for publication at the workshop to Barbara Emery (emery@ucar.edu) or via the web.
- **After May 1:** Students should call Professional Travel for airline tickets
- **May 5-10:** Deadlines for hotel reservations of reserved CEDAR-blocked rooms (check lodging listing in this newsletter for specific dates associated with each hotel).
- **May 22:** Registration for CEDAR Workshop after which late fees are imposed.
- **May 25:** Workshop presenters to get a description of their workshop to Barbara Emery (emery@ucar.edu) for publication at CEDAR meeting. Will also be put on web.
- **May 29:** Poster info due to Dave Hysell (daveh@vlasov.phys.clemson.edu)
using <http://landau.phys.clemson.edu/cedar.html> (the preferred method).

All registration packets will be available at Williams Village dormitory on Saturday (June 6) and Sunday (June 7), and at Math-100 in the mornings Monday through Friday (June 8-12). Those who registered for the workshop can pick up their packet even if they have not paid. If they have not paid, they will not have a receipt in their packets and should pay at the registration table Monday-Friday. Students will not get receipts unless they pay for guests. Those who request a parking permit on their registration form will find it in their registration packet. Permits are necessary during e week days.

Parking is in Lot 436 east of the Engineering Building, or in Lots 600 by Williams Village. Free shuttles will run between Williams Village and main campus in the morning, around lunch, and in the early evening. Permits are necessary Monday through Friday, and tickets can appear on cars within 5-10 minutes. Since we are not sure tickets will be torn up if you take too long getting your registration packet, another option is to park for a short time in the small metered lot just west of Math-100 long enough to get your registration packet, and then move to Lot 436.

Workshops will be held in the Engineering Building in the afternoons except for Tuesday, when there will be a single large poster session in the Glen Miller Ballroom at the University Memorial Center (UMC) along with a reception. Posters can go up as soon as 9 AM on Tuesday, and must be taken down by 10 PM. The buffet will be held on Wednesday, June 10 on the Tree Plaza of the NCAR Mesa Lab. Buses will be provided. Any alcohol at the reception and the buffet will come from voluntary contributions sent in with the registration form. The extra curricular activity is a tour of the Butterfly Pavillion and Insect Center Tuesday evening after the poster/reception.

GRADUATE STUDENTS AND TRAVEL GRANTS FOR CEDAR 1998

All students from US or foreign institutions who attend the CEDAR meeting will have their registration fees waived. A list of students, their interests and graduation dates will be distributed at the meeting. A bulletin board will be provided for job or other announcements. Jobs announced via the CEDAR e-mail list are posted on the WWW site:

<http://www.hao.ucar.edu/public/research/tiso/cedar/cedar.html>

Space is also available for resumes. Please send resumes to Barbara Emery (emery@ucar.edu). Students will be introduced via institution during the first plenary session on Monday morning.

NSF has provided funds for travel for students from US institutions or students from foreign universities who will be visiting a US institution during the summer and so will have a US sponsor. Preference will be given to graduate students, but involved undergraduates are also welcome. All non-local students, including all students from foreign universities, will receive a small per diem of \$26/day to help defray costs OR they will receive a double dorm room at Williams Village which is air conditioned. A single dorm room is \$20.50+\$1.98tax more per day since the service changed this year to include sheets only with maid service. Students can elect to stay in a single room if they pay the difference. Those who stay at the dorm will also get breakfast Monday through Friday.

Applications for travel funds must be received by APRIL 17!! The "Biography and Application for Student Financial Support" requires the signature of the research advisor. However, the form can be e-mailed in or submitted via the web if your advisor sends in a separate e-mail confirmation. ALL students should fill out the form in order to be included on the short biography of students, their interests and their advisors which will be available at the meeting. Please send these forms to Barbara Emery (emery@ucar.edu) at the address shown on the registration form. Include an e-mail address if possible since many announcements will be sent via e-mail only.

Professional Travel in Denver will make airline reservations for students travelling from cities where the government rate to Denver is cheaper than the early reservation Saturday night stayover rate. These cities are: Austin, Dallas, Dayton, Detroit, Madison, Salt Lake City, San Juan, and Washington (National). If you are flying from one of these cities, contact the Groups Department of Professional Travel at (800) 333-6338 (not available in Alaska), or (303) 706-0570 (FAX: (303) 706-0737 (NEW!)) to make airline reservations AFTER May 1.

Students travelling from other cities can get their tickets through Professional Travel or from their own travel agents. However, if the tickets are made through Professional Travel, we would prefer you to pay for them if you cancel. Government tickets can be cancelled with no penalty. Cities where the Saturday night stayover rate is within \$40 of the government rate can choose either service. These cities are: Boston, Champaign, Houston, Huntsville, New York (Newark), Pittsburgh, and Reno. Cities that do not have government fares now (but may later) are: Lincoln, Los Angeles, San Antonio, San Francisco, Seattle, and Washington (Dulles). The cities where the Saturday night fare is cheaper than the government fare are: Albuquerque, Baltimore, Daytona Beach, Fairbanks, Greenville, Iowa City, Ithaca, Manchester, Melbourne, New York (JFK and La Guardia), Orlando, State College, and Tucson. If you find a cheaper Saturday night fare than the one listed in a future letter to students, NCAR will pocket the difference to spend on other things. For undergraduates who are coming from their home cities, PLEASE contact Professional Travel to see if they can get you a good deal on the air fare. Students are not REQUIRED to stay the whole period, and Saturday night stayover tickets can be altered for about \$50, which students would be expected to pay if they change these.

Students who drive will receive \$0.315/mile or the equivalent air fare listed in the student letter, whichever is smaller.

The dormitory package is from Sunday night through Thursday night, with possible extensions of time at the beginning and end. Hence, if you plan to come for only part or none of the package time, stay at a hotel instead. The per diem (which includes meals, lodging, airport shuttle and miscellaneous) is \$26 per day, or \$182 for 7 nights stayover. The dorm service changed this year so the rates changed, making single rooms significantly more expensive. Therefore, NCAR will pay up to 7 nights From Saturday June 6 through Friday June 12 for a double room. Students who wish to stay in a single room may do

so if they pay the difference. All students outside of the dorm will have to pay their own lodging fees, and will be reimbursed \$26/day after the meeting. This per diem does not really cover meal costs or anything other than a dormitory room, but some advisors can help make up the difference.

All students must make their own lodging arrangements. Registration packets (with any requested parking permits) will be available at Williams Village Saturday and Sunday.

Barbara Emery (NCAR/HAO)

MEMBERSHIP OF THE CEDAR SCIENCE STEERING COMMITTEE FOR 1997-1998:

Maura Hagan	National Center for Atmospheric Research	303-497-1537	hagan@ucar.edu
Roderick Heelis	University of Texas, Dallas	214-690-2851	heelis@utdallas.edu
Michael Hickey	University of Alabama, Huntsville	205-890-6238	hickey@cspar.uah.edu
David Hysell	Clemson University	864-656-4349	daveh@vlasov.phys.clemson.edu
Michael Mendillo	Boston University	617-353-2629	mendillo@buasta.bu.edu
Joseph Salah*	MIT Haystack Observatory	978-692-4764	jsalah@newton.haystack.edu
Joseph She	Colorado State University, Fort Collins	970-491-6261	joeshe@lamar.colorado.edu
Gordon Shepherd	York University, Ontario, Canada	416-736-5247	gordon@windii.yorku.ca
Michael Sulzer	NAIC Arecibo Observatory	787-878-2612	msulzer@naic.edu
Michael Taylor	Utah State University	801-797-3919	mtaylor@cc.usu.edu
Anthony Van Eyken	EISCAT Scientific Association, Norway	47-77692166	tony@eiscat.uit.no

Student Representative:

Julie Chang	University of Colorado	303-492-4290	changj@boulder.colorado.edu
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Ex-officio:

Sunanda Basu	NSF Division of Atmospheric Sciences	703-306-1529	sbasu@nsf.gov
Robert Robinson	NSF Division of Atmospheric Sciences	703-306-1531	rmrobins@nsf.gov

* chair

1998 CEDAR WORKSHOP FORMS

Send filled forms to: emery@ucar.edu

Registration Form

1998 Thirteenth Summer NSF CEDAR Workshop

June 7-12, 1998

1. PLEASE PRINT

Name: _____

Institution: _____

Address: _____

Telephone: (____) _____ FAX: (____) _____

E-mail: _____

Hotel you plan to use _____ (To track hotel/dorm use for next year)

Are you a: Student (), Tutorial Speaker (), Neither ()

NOTE: Registrations received after May 22 will be charged a \$15.00 late fee for non-students and a \$5.00 late fee for students. Students wanting travel or per diem funds should register by April 17. Anyone wishing a parking permit for Lot 436 and Lots 600 (Williams Village) must check 7c below, even if it is free!

2. I plan to attend the Student Workshop on Sunday June 7
Topic is 'Communicating with One's Peers', and is open to non-students. _____
3. I plan to present a poster of Tuesday, June 9
NOTE: Send information to Dave Hysell (daveh@vlasov.phys.clemson.edu)
Using <http://landau.phys.clemson.edu/cedar.html>. Please include
title, author list, and indicate if the first author is a student _____
4. I plan to attend the Poster/Reception on Tuesday, June 9
1:30-5:30 PM at the Glen Miller Ballroom (UMC). Guests are welcome. _____
5. I and any guests plan to tour the Butterfly Pavillion and Insect Center Tuesday evening
June 9 after the poster/reception (A box dinner on the bus is a possibility.) _____
6. I plan to attend the buffet at NCAR on Wednesday, June 10
(Additional \$15, free for students and tutorial speakers) _____
7. Fees: The regular registration fee for the CEDAR Workshop is \$70. It could be more
depending on attendance at the buffet, parking, and late fees. _____

NOTE1: ALL FEES ARE WAIVED FOR STUDENTS AND TUTORIAL SPEAKERS. FEES FOR GUESTS ARE NOT WAIVED, NOR ARE LATE ASSESSMENTS. (Any voluntary amounts for alcohol will be gratefully received.)

NOTE 2: Foreign registrants are not assessed the late fee of \$15 if they register before May 22. They can pay their fees at the meeting.

NOTE 3: Alcohol at the reception and buffet will be funded out of voluntary contributions (f) below. A suggested contribution is \$10-20.

- (a) Regular Registration \$70.00 (Sun Jun 7-Fri Jun 12)
Includes reception on Tuesday, June 9. (Free for tutorial speakers or students) _____
- (b) Registration for retirees \$20.00 (June 7-12) _____
- (c) Parking permit for June 7-12 (needed M-F!) \$15.00
(Free for tutorial speakers or students -- Please check here if you want a permit, or none will be provided!) _____
- (d) NCAR buffet \$15.00 Wednesday, June 10 (Free for tutorial speakers or students) _____
- (e) Guests for NCAR buffet @ \$15.00/ea or \$7.50/child _____
- (f) Voluntary contribution for alcohol at reception/buffet _____
- (g) Late fee if registering after May 22 \$15.00 _____
- (h) Late fee FOR STUDENTS registering after May 22 \$5.00 _____

TOTAL fees: _____

NOTE: If registration payment is not enclosed with this form, please be certain that checks sent separately identify you and the workshop. Checks for the workshop, reception, buffet, guests, and alcohol should be made payable to NCAR. NCAR does not accept VISA or MasterCard. Foreign registrants can pay on arrival provided they mail their registration forms in before May 22. Please send correspondence to:

Barbara Emery
HAO/NCAR
P.O. Box 3000
Boulder, CO 80307-3000
(303) 497-1596
FAX Number: (303) 497-1589
e-mail: emery@ucar.edu

STUDENTS Please complete BOTH pages of this registration form

BIOGRAPHY AND APPLICATION FOR STUDENT FINANCIAL SUPPORT TO ATTEND THE ANNUAL CEDAR MEETING

All students are eligible to receive a registration fee waiver, including those from non-US institutions. All non-local students are eligible to receive either a double dorm room or \$26/day. Travel funds are also available for students from US institutions. All students must fill out this application form, which is input for the list of students and *their interests* available at the meeting. The application deadline is April 17, 1998. See the write-up about travel grants for more information. If this form is returned via the web or e-mail, the advisor can send a short e-mail indicating awareness and approval of the student's application for funding.

PLEASE PRINT

Name: _____

University Address: _____

Phone: _____ Fax: _____

e-mail: _____

Mailing Address (if different): _____

Expected Degree (BS, MS, PhD) and Date of Graduation: _____

Advisor(s) Name, Phone Number and e-mail: _____

Research Interests: _____

Instruments, Models, or Data Used: _____

Advisor's Signature of Student Status: _____

I confirm that the applicant is a () graduate () undergraduate student at my university or research laboratory and is working on a research project related to the CEDAR Program.

Signature of Research Advisor: _____

UNIVERSITY OF COLORADO SUMMER CONFERENCE HOUSING APPLICATION
Williams Village

COMPLETE THE INFORMATION REQUESTED BELOW AND SEND TO THE ADDRESS INDICATED AT THE BOTTOM OF THE FORM.

Name of Conference: NSF CEDAR Meeting, Summer 1998

Name of Participant: _____ Sex: _____
(last) (first)

Lodging: Check-In Date (earliest Sat June 6) _____

Check-Out Date (latest Sat June 13) _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: (Home) _____ (Business) _____

Please request one of the following:

*Single Room _____ Double Room: _____

(Roommate Preference if Any) _____

Special Requests (Smoker/Nonsmoker, etc.) _____

*There are a limited number of single rooms. If a single room is unavailable, you will share a double room with another conference participant.

Complete if Accompanied by Spouse and/or Family:

Spouse's Name _____

Lodging: Check-In Date: _____ Check-Out Date: _____

Children: Name: _____ Age _____ Sex _____ DbI _____ Sngl _____

Check-In Date: _____ Check-Out Date: _____

Name: _____ Age _____ Sex _____ DbI _____ Sngl _____

Check-In Date: _____ Check-Out Date: _____

Name: _____ Age _____ Sex _____ DbI _____ Sngl _____

Check-In Date: _____ Check-Out Date: _____

Will a rollaway bed be needed? _____ Crib? _____

Total Number in Party _____

PAYMENT IS DUE AT CHECK-IN. Cash, travelers checks, personal checks, VISA and MasterCard will be accepted. DO NOT SEND MONEY IN ADVANCE. STUDENT double rooms will be paid by NCAR. Spouses are welcome in double rooms, but they will be charged the full amount (i.e., it is NOT a small charge to add another person to a room). Students who wish to have a single room may do so if they pay the extra (\$20.50/day plus \$1.98 tax).

MAIL TO: Williams Village
Summer Conferences
University of Colorado
Boulder, CO 80310
or FAX: (303) 492-5509 w/v
or e-mail: lodging@housing.colorado.edu

492-5959 conf (preferred)

BOULDER LODGING AND LOCAL TRANSPORTATION INFORMATION

1998 Summer NSF CEDAR Workshop

June 7-12, 1998

The facilities listed below have blocked rooms for workshop participants between the nights of June 6-13, 1998. Reservations must be accompanied by a credit card charge number or a deposit for the first night of lodging; Visa, MasterCard, American Express, and Discover credit cards are accepted at most of the hotels. Cancellations must be made before 4:00 PM on the arrival day to avoid being charged for the first night of lodging. The blocks of rooms at special workshop rates are only being held until the dates indicated below and they may fill up early. **MAKE ALL RESERVATIONS AS SOON AS POSSIBLE AND SPECIFICALLY MENTION THE CEDAR WORKSHOP HOSTED BY NCAR** (if using a travel agent, have them identify you in the same manner). Participating hotels and rates for June 6-13, 1998 are:

Hotel	Single	Double	Deadline	No. of Rooms
Days Inn 5397 South Boulder Road Boulder, CO 80303 (800)329-7466; FAX: (303)494-0269	\$76	\$81	May 6	30
Holiday Inn of Boulder 800 28 th Street Boulder, CO 80303 (303)443-3322; FAX (303)443-0397	\$82	\$82	May 10	35
The Broker Inn 555 30 th Street Boulder, CO 80303 (800)338-5407 or (303)444-3330 FAX (303)444-6444	\$83	\$93	May 5	30
Best Western Golden Buff Lodge 1725 28 th Street Boulder, CO 80301 (800)999-2833 or (303)442-7450 Group #217647 *This is a deluxe single with microwave and 2 queen beds	\$74	\$83*	May 6	20

RESERVE ROOMS BEFORE DEADLINES TO ASSURE LOWER RATES. **The rates do not include 9.65% sales tax.** All hotels have comfortable accommodations and all of them can provide shuttle service to local meetings if requested by individuals in advance (based on availability). Checkout times are 12:00 noon.

University of Colorado (Dormitory Rooms and Meals)			
	Single	Double	No. of Rooms
Williams Village Summer Conferences University of Colorado Boulder, CO 80310 FAX: (303)492-5509 e-mail: lodging@housing.colorado.edu	~\$235.00/person + 9.65% tax	~\$132.50/person +9.65% tax	41 (S) 50 (D)

Check in at Williams Village. NCAR will pay for students in a double for up to 7 nights between June 6-12 (check-out June 13). Others must pay on arrival. Students who wish to stay in a single may do so if they pay the extra \$20.50 per night plus tax. The cost of a single is \$41.00/night plus tax, while the cost of a double is \$20.50 per person per night plus tax. Breakfast is \$6 plus tax. The rates for the dorm campus package include a dorm room for 5 nights from Sunday June 7 to Thursday June 11 with breakfast every day Monday through Friday. Non-student early arrivals and late departures would pay more. The University of Colorado accepts VISA and MasterCard. Parking permits for Lot 436 and Lot 600 (Williams Village) can be requested in the registration form and picked up in the registration packets that will be available at Williams Village Saturday and Sunday, and at the registration table in the mornings Monday through Friday.

GROUND TRANSPORTATION (Airport): The Boulder Airporter Inc [(303) 444-0808, \$14/one way] will take reservations for direct transportation between Denver International Airport and Boulder hotels. Williams Village is just across the street from the Broker Inn.

DAY CARE: For child care while you attend the workshop, Children's World at 5377 Manhattan Circle in Boulder will accept children on a drop-in basis (based on space availability). Children's World also offers summer field-trip programs. If you're interested, please call Children's World at (303) 494-3694. Many other daycare facilities are listed in the Boulder telephone directory under Child Care.

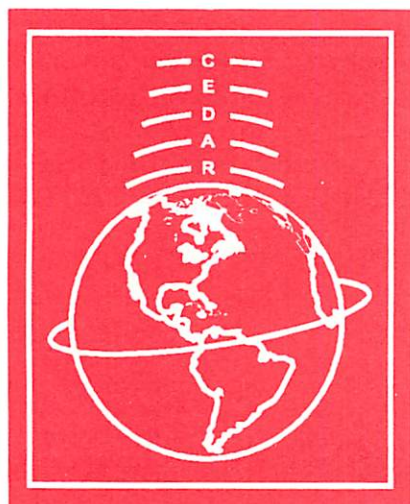
CEDAR Baked Beans

Submissions are invited to the CEDAR Baked Beans section of the Post. The purpose is to provide an informal forum for anyone to briefly address issues of general interest and provocative nature. Limited to 250 words. Replies to such commentaries are also welcome. Final selection for publication rests with the Editor.

CEDAR Phase III Report Available

To receive a copy, send request to:

Kathy Nottingham
Center for Space Physics
Boston University
725 Commonwealth Avenue
Boston, MA 02215
e-mail: kathynot@bu.edu
Tel: 616-353-5990
Fax: 617-353-6463



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*****5-DIGIT 80307
Barbara Emery
NCAR
High Altitude Observatory
P.O. Box 3000
Boulder CO 80307-3000

The CEDAR Post is published three times a year and is mailed to more than 1000 scientists worldwide.

J. Salah, Editor (jes@newton.haystack.edu)
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