

GEST DIGEST

VOLUME 14, ISSUE 14

MAY 2004

GEST Celebrates 4th Year

May 11, 2004 earmarked the 4th year of the operation of the GEST Center. The occasion was celebrated with colleagues at the Baltimore office.

The Goddard Earth Sciences and Technology Center (GEST), operates under a cooperative agreement between NASA Goddard Space Flight Center (GSFC) and the University of Maryland, Baltimore County (UMBC).

In this fourth year of existence and continued growth, significant progress has been made in continuing to establish GEST as a prominent center for research and international collaboration in the Earth and information-sciences. The breadth of research interest has also grown, allowing the formation of two additional Research Groups along with reorganization of the previous six groups: Global Modeling and Assimilation Office - A, Global Modeling and Assimilation Office - B, Cloud Modeling, Cloud Analysis, Atmospheric Chemistry and Dynamics, Terrestrial Physics, Information Science and Educational Technology, and Hydrological Sciences, each composed of scientists with related and complementary expertise.

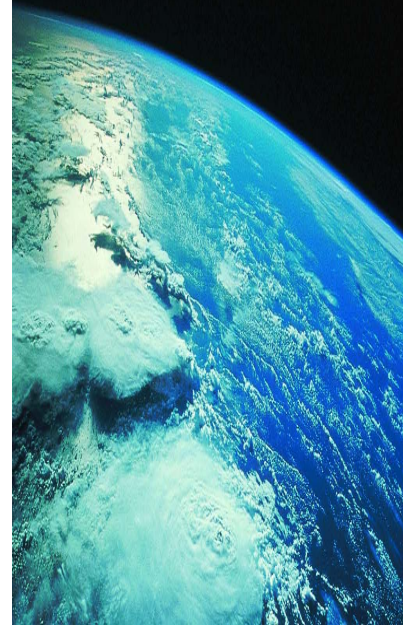
The quality and significance of the research conducted by GEST and its collaborators is extremely satisfying. We have been especially happy to witness the realization of goals that were imagined during the inception of GEST, having to do with educational programs, support to graduate students and post-doctoral investigators, providing opportunities for visiting fellows, focused-topic international workshops, and international program coordination.

GEST's continued growth and contributions have been possible only because of the hard work and enthusiastic support of many people. As always, the real credit for the vitality of the organization goes to the GEST faculty and staff for their excellent work.

Happy 4th Birthday

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GSSP Seminar Series
Contemporary Themes in Earth Science
June 8 - 11, 2004

The Graduate Student Summer Program (GSSP) is a 10 week internship for graduate students in the Earth sciences, biological sciences, physics, mathematics, and engineering intended to encourage careers in these fields especially as associated with the Earth Sciences Directorate at Goddard Space Flight Center (GSFC). GSSP is one of three programs of the Goddard Earth Science and Technology Center that provides students with the opportunity to work with mentors in an organization recognized as a world leader in the study and application of satellite observations of the Earth. The GSSP seminar series, organized for the first week of the summer session, provides students and others in the local research community with the opportunity to interact with leading researchers on topics of importance to the Earth Sciences. The theme for the 2004 seminar series is: "Contemporary Themes in Earth Science."

The seminars and the summer programs are organized and managed by the Goddard Earth Sciences and Technology Center (GEST). GEST is a consortium of academic and industrial organizations, led by the University of Maryland, Baltimore County, and selected by the NASA Goddard Space Flight Center to promote excellence in Earth science research.

GSFC employees are welcome. All non GSFC employees must be U.S. citizens and must provide 3 days advance notice of seminar interest to Marci Delaney at (301-286-4403) for security purposes.

June 8

- 09:15 - Welcome/Introduction (F. Einaudi)
- 09:30 - Overview of NASA's Earth Science Program (J. Kaye)
- 10:30 - Coffee break
- 11:00 - Ecosystems and the Global Carbon Cycle (J. Collatz)
- 12:00 - Adjourn

June 9

- 09:00 - Atmospheric Chemistry, Aerosols and Solar Radiation (M. Chin)
- 10:30 - Coffee Break
- 11:00 - Global Water and Energy Cycle (P. Houser)
- 12:30 - Adjourn

June 10

- 09:00 - Oceans, Ice and the Coastal Zone (R. Bindshadler)
- 10:30 - Coffee Break
- 11:00 - Solid Earth Science (B. Chao)
- 12:30 - Adjourn

June 11

- 09:00 - Earth System Modeling
 - Global Climate Modeling (A. DelGenio)
 - Data Assimilation (S. Cohn)
- 10:30 - Coffee Break
- 11:00 - Remote Sensing Applications (S. Habib)
- 11:45 - Advances in Technology
 - Laser/Lidar (J. Abshire)
 - Microwave (E. Kim)
- 12:15 - Adjourn



The GSSP and VSEP summer programs are off to a great start with the final selection of students. Nine (9) students were selected for GSSP, fifteen (15) VSEP, and fifteen (15) HPC summer programs. HPC program will commence on July 5, 2004.

[Graduate Student Summer Program in Earth System Science \(GSSP Program Activities\)](#)

Research Projects: Each student will be teamed with a NASA scientist mentor with parallel scientific interests to jointly develop and carry out an intensive research project at GSFC over the ten-week period. NASA mentors will be drawn from within the four participating Earth Science laboratories at Goddard: The Laboratory for Atmospheres, The Goddard Institute for Space Studies (in New York city), The Laboratory for Hydrospheric Processes, and The Laboratory for Terrestrial Physics. Students will be expected to produce final oral and written reports on their summer research activities.

Nine students were selected for the GSSP program. Students are required to participate in an introductory lecture series and in informal weekly lunch discussions with GSFC researchers. Students may also have the opportunity to tour key NASA facilities and meet with NASA and industry scientific leaders.

[Visiting Student Enrichment Program \(VSEP Program Activities - 6/7/04 - 8/13/04\)](#)

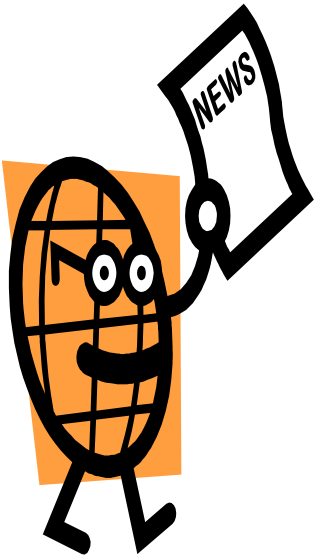
VSEP offers students summer employment with the Goddard Earth Sciences and Technology Center (GEST), working with scientists at NASA's Goddard Space Flight Center (GSFC). Student projects have included simulating neural networks, preparing image analysis algorithms on supercomputers, developing computational science applications, and creating interactive World Wide Web sites.

Students are provided opportunities to work with scientists and professionals at a world-class facility while experiencing meaningful work through a project primarily focused on computer science or the application of computers to solve problems in other sciences. VSEP also offers field trips and lectures to broaden appreciation for GSFC's mission and activities.

[NASA Summer School for High Performance Computational Earth and Space Sciences \(HPC\)](#) [7/5/04—7/23/04](#)

Doctoral candidates are given hands-on computer training and small group interaction experience. Staff and invited computational scientists will present a series of lectures on advanced topics in computational Earth and space sciences, with emphasis on computational fluid dynamics and particle methods. Lectures will be presented on developing software for massively parallel architectures. Students are encouraged to give a presentation of their thesis research interests during the course of the summer school.

WELCOME - NEW EMPLOYEES



Dr. Friedemann Freund	Code 900
Dr. Rong Rong Li	Code 913
Dr. Marco Tedesco	Code
Dr. Viktor Zubko	Code 913

Open Solicitations (Office of Earth Science)

Program Title of Solicitation	Announcement Number	Solicitation Release Date	NOI Due Date	Proposals Due Date
Earth System Science Pathfinder Program Announcement of Opportunity - 4	NNH04ZYP001O	See Announcement		
Measurements, Modeling, and Analyses in Support of AURA and Other NASA Satellite Observations of the Earth's Atmosphere	NNH04ZYS004N	14-Jun-2004	14-Jul-2004	30-Aug-2004
NASA Energy and Water Cycle NRA	NNH04ZYS005N	See Announcement		

GRANTS SUBMITTED

The following GEST Faculty submitted grant proposals in the month of May 2004

Judit Pap, Influence of the Sun's Radiation and Particles on the Earth's Atmosphere and Climate - NASA Sun-Earth Connections.

Susan Sakimoto - Thermal and Mechanical Analysis of Small Shallow Magma Reservoirs on Mars - Pomona College.

Susan Sakimoto - Workshop on recent Water and Lava Floods on Mars: Terrestrial Analogs of the Columbia River Plateau - National Science Foundation.

GEST Faculty Quarterly Meetings

June 24, 2004 - **Cancelled**

August 19, 2004

Dec. 15, 2004

GODDARD EARTH SCIENCES AND TECHNOLOGY CENTER

Please email information for the newsletter to roscoe@umbc.edu prior to the 15th of each month



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IMPORTANT DATES

5TH of each month

Monthly time sheets due into GEST Office

Jan. W2 received at home by Jan 31st

Feb. GEST Annual Report input due to Faculty Group Spokesperson

Mar. UMBC Faculty Annual Report (FAR) due
-GEST Quarterly Faculty Meeting March 30th

Apr. **Deadline for filing Federal and State tax returns April 15th.**

May Memorial Day

June UMBC Fiscal year closes June 30th. All expense forms due in by early June

GEST Quarterly Faculty Meeting - June 24th
Cancelled

July GEST Annual Research Program Plan distributed (ARPP)

Aug. No health insurance taken out of pay one cycle

GEST Faculty Quarterly Meeting - Aug. 19th

Sept. Consulting Report due to Nancy
- Labor Day Holiday September 1st
- NASA Fiscal Year ends Sept. 30

Oct. Columbus Day Holiday - October 14th
- **Open enrollment for Health Plans -**

Nov. Veterans Holiday - November 11th
- Thanksgiving - November 27th

Dec. All non-US citizens must file new Citizenship Status Form and W4
- GEST Faculty Quarterly Meeting- Dec. 15th, GSFC

Christmas - December 25th
- Moving expenses this year taxed final paycheck of year