

LIST OF NEW MEMBERS AND ASSOCIATE MEMBERS

Mary Satterfield	Carmiña Londoño
Scott Goldie	Michael Gaitan
Jeffrey Horlick	Jason Elliot Sanabia
Carl Williams	Abigail Lindstrom

NIST SIGMA XI CHAPTER PRESIDENTS

Hans J. Oser	1976-77	Johanna M. H.	
John W. Rowen	1977-78	Levelt Sengers	1989-90
H. Steffen Peiser	1978-79	Kenneth G. Kreider	1990-91
Karl G. Kessler	1979-80	Ronald G. Rehm	1991-92
Theodore V. Vorburger	1980-81	Edgar S. Etz	1992-93
Barbara F. Howell	1981-82	Barbara C. Levin	1993-94
Edward L. Brady	1982-83	Harry L. Rook	1994-95
James F. Schooley	1983-84	W. Robert Kelly	1995-96
Anna C. Fraker	1984-85	Robert D. Shull	1996-97
Chris E. Kuyatt	1985-86	Dale E. Newbury	1997-98
Lawrence H. Bennett	1986-87	Daniel W. Lozier	1998-99
Howard E. Sorrows	1987-88	William R. Ott	1999-00
Marilyn E. Jacox	1988-89	Robert A. Fletcher	2000-01
		Bert M. Coursey	2001-02

ACKNOWLEDGMENTS

MANY THANKS TO:

Ellyn S. Beary, Gerald V. Blessing, Heather Chen-Mayer, Bert M. Coursey, Charles Ehrlich, Bob Fletcher, Katharine Gebbie, Karl Irikura, Marilyn Jacox, Lisa Karam, Bob Kelly, Barbara C. Levin, Daniel Lozier, John Maurey, Magdalena Navarro, and Mike Rowe, and Lorna Sniegoski for their generous contributions to the **Post-Doctoral Poster Presentation (PPP) refreshments**.

AND

Dale Newbury (Chair), Marcia Holden, Eric Vogel, William Boettinger, and Thomas Lucartorto for serving as **PPP judges**;

AND

Dale Newbury, John Henry Scott, Edgar Etz, Chuck Erhlich, and Robert Fletcher for serving as **Montgomery Area Science Fair Sigma Xi Judges**, Robert Myklebust, Gerry V. Blessing, Bert M. Coursey and John Jakupciak as **Frederick County Science Fair judges**.

The Willow Tree Inn, Thursday, May 9, 2002

Annual Banquet Program

5:30 pm Social Hour (Cash Bar)
 6:30 pm Dinner
 7:15 pm Program

- Introduction of Current Officers Bert M. Coursey
- Remarks by the Incoming President Gerald V. Blessing
- Introduction of New Officers Gerald V. Blessing
- Introduction of New Members Ellyn S. Beary
- Presentation of Awards

Outstanding Teacher Award *Angela R. Hight Walker*
Catherine Lamaze (Quince Orchard High School)

Measurement Science Awards for High School Science Fairs

Montgomery County	<i>Dale E. Newbury</i>
Rachel Maire (Montgomery Blair High School)	
Shaleen Vira (Rockville High School)	
Frederick County	Gerald V. Blessing
Cathalina Juarez (Middletown High School)	

Outstanding Post-doctoral Presentation Awards *Barbara C. Levin*
Christopher L. Soles (Polymers Division, MSEL)
Nancy Ortins Savage (Process Measurements Division, CSTL)

Young Scientist Awards for Excellence in Scientific Research *Marilyn E. Jacox*
Eric Shirley (Optical Technology Division, PL)
Taner Yildirim (NIST Center for Neutron Research, MSEL)

Outstanding Service in Support of Research Scientists *Marilyn E. Jacox*
Anita K. Sweigert (Physics Laboratory)

Outstanding Service to the NIST Sigma Xi Chapter *Bert M. Coursey*
H. Heather Chen-Mayer (Analytical Chemical Division, CSTL)

• **Introduction of Speaker** *Bert M. Coursey*
Dr. William C. Stone (Structures Division, BFRL)

Sigma Xi, The Scientific Research Society
National Institute of Standards and Technology Chapter

26th Annual Banquet

Featured Speaker:
Dr. William C. Stone
 Structures Division, BFRL
 National Institute of Standards and Technology

*“3D Speleology: New Technologies
 for Charting the Underworld”*

Willow Tree Inn
 Thursday, May 9, 2002

Dr. William Stone, leader of the U.S. Deep Caving Team, has spent 34 years exploring some of the world's greatest natural abysses. Hand-in-hand with original exploration comes the requirement to document new discoveries. Traditionally, this has been a laborious process involving hand-held optical instruments and measuring tapes and the result has been a vector computer plot that is later embellished with hand sketched details to produce a map. Such maps are largely thought of as artwork --not unlike maps drawn by mariners 500 years ago (but lacking dragons)-- and their connection to the true geometry of a cavern only approximate. In 1999 Dr. Stone led a major National Geographic Society expedition that changed this paradigm, substituting imaging sensor arrays and guided mobile computational platforms to create the first on-the-fly 3D subterranean map. And it was all done 100 meters underwater beneath the cypress swamps of northern Florida. Subsequently, methods has been develop for 3D imaging of air-filled caverns.

LIST OF 2001-2002 PRESENTATIONS AND SPEAKERS

"Oxidative Stress and Tissue Engineering"
HENRY RODRIGUEZ (ACSL, NIST)
2001 National Sigma Xi Young Investigator Award, October 2001

"Langmuir-Blodgett Surface Chemistry: Reflections"
JACK HOFFMAN, TED PRINCE and KATHARINE GEBBIE
(MSEL & PL, NIST) November 2001

"The Numerical Simulation of Fire"
KEVIN MCGRATTAN (BFRL, NIST)
2001 NIST Sigma Xi Young Scientist Award, December 2001

"Through a Looking Glass: The Art of the Science of Renaissance Painting"
CHARLES FALCO (Dept. of Physics, Univ. of Arizona)
Jointly Sponsored with NIST Colloquium, December 2001

"Viewing surfaces with polarized light: Seeing through the haze"
THOMAS GERMER (PL, NIST)
2001 NIST Sigma Xi Young Scientist Award, February 2002



9th Annual Post-Doctoral Poster Presentation
NIST Sigma Xi Chapter, February 2002

"The Seven Warning Signs of VOOODOO Science"
ROBERT L. PARK (Dept. of Physics, Univ. of Maryland)
Jointly Sponsored NIST Colloquium, March 2002

"3D Speleology: New Technologies for Charting the Underworld"
WILLIAM C. STONE (BFRL, NIST)
2002 NIST Sigma Xi Banquet Speaker, May 9, 2002

"Evidence for Nuclear Emissions during Acoustic Cavitation"
R.P. TALEYARKHAN (Oak Ridge National Laboratory)
NIST Green Auditorium, May 29, 2002

OFFICERS AND COMMITTEES

	2001-2002	2002-2003
Executive Committee President President-Elect Secretary Treasurer Past-President	Bert M. Coursey (2002) Gerald V. Blessing (2002) Magdalena Navarro(2003) Alan H. Cookson (2002) Robert A. Fletcher (2001)  Bert M. Coursey	Gerald V. Blessing (2003) Charles D. Ehrlich(2003) Magdalena Navarro (2003) Alan H. Cookson (2004) Bert M. Coursey(2002)  Gerald V. Blessing
Nominations Committee	Charles D. Ehrlich (2002, Chair) Thomas E. Gills (2003) Fern Hunt (2004) Michael P. Casassa (2003) Gerry Blessing (Ex-officio) Laurie Locascio (2002)	Laurie Locascio (2004, Chair) Karl Irikura (2004) Michael P. Casassa (2003) Thomas E. Gills (2003) Fern Hunt (2004) Charles D. Ehrlich (Ex-officio)
Admissions Committee	Ellyn S. Beary (2004, Chair) Anna C. Fraker (2002) Lisa R. Karam (2003) John R. Rumble Jr. (2003) George G. Harman (2002) Magdalena Navarro (2001)	Ellyn S. Beary (2004, Chair) Anna C. Fraker (2002) Lisa R. Karam (2003) John R. Rumble Jr. (2003) George G. Harman (2004) Howard Baum (2004) Barbara Levin (2004)
Education Committee (Open to All Members and Associate Members)	Angela R. Hight Walker (Chair) Gerald V. Blessing John Blendell Julia Y. Chan Carol A. Handwerker Jack J. Hsia W. Robert Kelly John R. Maurey Robert L. Myklebust Dale E. Newbury Catherine D. O'Connell Robert D. Shull John A. Small	Angela R. Hight Walker (Chair) Gerald V. Blessing John Blendell Julia Y. Chan Carol A. Handwerker Jack J. Hsia W. Robert Kelly John R. Maurey Robert L. Myklebust Dale E. Newbury Catherine D. O'Connell Robert D. Shull John A. Small
Program Committee	Gerald V. Blessing (Chair) Robert A. Fletcher Daniel W. Lozier Dale E. Newbury Robert D. Shull William R. Ott Bert M. Coursey Magdalena Navarro	Charles D. Ehrlich (Chair) Gerald V. Blessing William R. Ott Magdalena Navarro Daniel W. Lozier Dale E. Newbury Robert D. Shull Bert M. Coursey
Awards Committee	Marilyn E. Jacox (Chair) Kenneth G. Kreider Theodore V. Vorburger Robert D. Shull	Marilyn E. Jacox (Chair) (Members to be appointed)
Postdoctoral Presentation Committee (Open to All Members and Associate Members)	Barbara C. Levin (Chair) H. Heather Chen-Mayer Jack J. Hsia Dale E. Newbury Robert A. Fletcher W. Robert Kelly Magdalena Navarro	Barbara C. Levin (Chair) H. Heather Chen-Mayer Jack J. Hsia Dale E. Newbury Robert A. Fletcher W. Robert Kelly Magdalena Navarro