

Society for Chaos Theory in Psychology & Life Sciences NEWSLETTER

Vol. 12, No. 1, October, 2004
Robert J. Porter, Ph.D., Editor
Stephen J. Guastello, Ph.D., Publisher
Holly Arrow, Ph.D., President

SCTPLS ♥ DENVER

NEWSFLASH: Koopmans New President-Elect

also

Mud-Bug's Meter Measures Pols' Mud

Mile High Chaos Planned Denver Chosen for Summer, 2005

SCTPLS President Holly Arrow recently announced that the 2005 Society conference will be held in Denver, Colorado, University of Denver, Aug 4-6, Thurs-Sat.

University of Denver will host the 15th Annual International Conference. This gorgeous location boasts breathtaking mountain scenery on one side a bustling city on the other, and slick modern classrooms for our meetings within. For those who are not familiar with the subtleties of US geography, Denver is known as the Mile High City because its elevation is mile above sea level. University of Denver also offers a space observatory that will be featured in this year's program.

Matthijs Koopmans, our new President-Elect will chair this year's conference committee and organize the program. The conference web site will be available very soon after you receive this Newsletter, and the Call for Papers will follow in all the usual distribution media.

Anyone who has an idea for the conference right now should contact Matthijs at MKoopmans@aol.com. The conference web site will be rigged so that you can upload your abstract submissions through the web. This system worked out very well for the 2004 conference, and our members might as well know that the web system makes the job of compiling the conference program much easier than the old way of assembling it.

Meg Spohn, who is a graduate student at University of Denver will be helping us out with the ground control activities this year. She has already expended considerable effort research-ing the options for a conference in Denver.

Matthijs Koopmans New President-Elect

Jeff Goldstein, SCTPLS Board Member and official vote counter, reports that 69 folks sent votes for President this Fall (without a single hanging chad!) and that Dr. Koopmans has been elected. Dr. Koopmans' letter to the membership appears inside.

Former SCTPLS Prez' Mud-Meter Monitors Kerry/Bush Campaign

Kevin Dooley, former SCTPLS President, has been a media darling recently. His company, Crawdad Technologies, which he founded, in 2002, with ASU colleague, Steven Corman, has been applying sophisticated text analysis methods to the Presidential campaign text flows and speeches.

The New York Times, National Public Radio, local television, and media from France, Russia, and Japan, have all done stories on the *Crawdad Campaign Dashboard* (<http://www.crawdadtch.com/campaign>)

The website provides an apolitical comprehensive analysis of campaign communications from the Bush and Kerry official web sites and blogs, updated daily. The Dashboard uses the same technology to analyze both message streams, and provides information concerning the tone, intensity, and focus of campaign communications, key words from each campaign, and image nets that show how the candidates are semantically framing themselves and the other. Additionally, the *Crawdad Mud Meter™* provides an objective measure of political mudslinging that has never been available before. The Dashboard is provided by *Crawdad Technologies, LLC*. For a detailed explanation of how the Dashboard works, visit: <http://www.asu.edu/feature/campaign/details.htm>.

Crawdad reports that the analysis reveals that Bush's messages have been relatively focused throughout the campaign. Bush threw the most mud at Kerry right after the Republican convention.

- Kerry's messages were positive and focused before the Democratic convention, and have become increasingly more negative and unfocused since then. Mud throwing accelerated after Kerry's new campaign staff members came aboard at the beginning of September.
- Kerry's messages frame Bush using complex arguments, although they have simplified since the beginning of October; Bush's frame Kerry using simple adjectives.
- Bush's messages have emphasized local issues in swing states more than Kerry's.
- Kerry's messages have emphasized national and international issues more than Bush.
- Kerry's messages are focused on Bush's policies and outcomes; Bush's are focused on Kerry's attributes.
- Both campaigns have used the word "leadership" consistently to frame their own candidate.
- Bush messages rarely refer to Kerry by name; Kerry's messages usually refer to Bush by name.
- Bush's web site contains more material, including full speeches and many testimonials. Kerry's web site contains less material, including only portions of speeches and fewer testimonials.

According to Crawdad Technologies, LLC, their patent-pending technology helps companies gain insight from qualitative data, such as media streams, interviews, and focus groups. Crawdad's technologies enable it to examine connections between words, rather than just the words alone. The Crawdad Mud Meter™ was recently featured in a New York Times article ("Computer measures political mudslinging," J.



Tierney, Sept. 12, 2004). Crawdad's web site is at: <http://www.crawdadtch.com>.--Ed.

President's Letter

**Holly Arrow,
President of the Society, 2004-2005**

In Oregon, Fall means the return of the rains, and I write this as a steady drumbeat of rain falls outside my cozy living room and the first fire of the season blazes in our woodstove. The flickering of the flames and the tendrils of smoke remind me of my first discovery of chaos theory back in the 1980s, when I was delighted to find that scientists had found a mysterious order in the dynamics of such inherently mesmerizing natural phenomena as the growth of plants, the shapes of clouds, and even the dripping of water from a faucet. Now we are finding such order and complexity in heartbeats, in the patterning of thought, and in social dynamics such as family interactions, the expertise of our new president-elect, Matthijs Koopmans.

Matthijs has been an active member of the society since 1996, and has contributed a great deal to the Membership Committee in the past year. I look forward to working with him as he takes on the role of Conference Chair for our next conference. Getting the new President-Elect on board a few months earlier than has been the custom in the past should help make the transition smoother as conference planning ramps up. I was delighted at the turnout for the election: a total of 69 votes were cast, very respectable compared to the rather embarrassing numbers of the past several years. Thank you, members, for your participation! Thanks are also due to the Nominations and Elections committee, which both completed the call for nominations well before the annual meeting and also solicited statements from our trio of excellent candidates promptly after the meeting so that we could hold the election earlier.

Active involvement was a highlight of the 2004 conference in Milwaukee, as well, where presentations were regularly followed by lively Q&A sessions, with discussions that spilled over into coffee breaks and were taken up at the plenary sessions at the end of each day. One emerging theme that I took away from the conference was the importance of going beyond a multi-disciplinary society, in which people from many academic backgrounds share their work in a common forum, to a truly inter-disciplinary society, which requires a much greater commitment to listening and conversation. Many thanks to all who made the conference such a success, by serving on the Review Panel, on the Program Committee, and by coming and participating as fully as you all did.

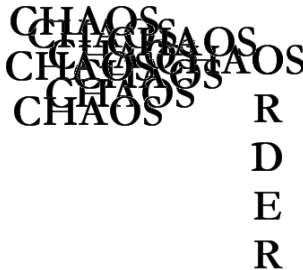
At our annual business meeting, members proposed the creation of a new Media Committee to publicize the work of our Society and its members. I'm happy to announce that this committee has now been staffed: thanks to Mark Filippi, Daniel Miller, and George Muhs for agreeing to serve.

Although only a few months have passed since the Milwaukee conference, exploration of possible sites for the next conference, has already been underway for many weeks. The Executive Committee has recently approved a proposal to hold the 15th annual conference at the University of Denver, in the beautiful Rocky Mountain state of Colorado, in early August 2005.

Along with our stateside conference, we have solicited input into possible locations for the second International Nonlinear Science Conference (INSC) to be held in the spring of 2006, and have received an enthusiastic response from members who would like to see this conference held in Ireland, Germany, Spain, Italy, Denmark, Greece, Norway, Hungary, the Czech Republic... or Japan. The executive committee is sorting through the responses and will be looking to narrow down the options, request more detailed information about logistics and probable costs, and settle on a site by the end of this year. The next INSC will, I hope, prove a welcoming setting for many nonlinear scientists who have not been able to join us at our meetings in North America.

--Holly Arrow, President SCTPLS

Holly Arrow is Associate Professor in the Department of Psychology and the Institute of Cognitive and Decision Sciences, University of Oregon, USA. She studies the emergence and transformation of structure in small groups.—Ed.



President-Elect's Letter
Matthijs Koopmans,
President Elect, 2003-2005

Dear SCTPLS Community:

I am pleased and honored to take on the presidency of SCTPLS next year. There are many things to look forward to in the near future. This is a critical and interesting time for our society. As we have been successful demonstrating the promise of nonlinear dynamical systems approaches to the scientific community, before us lies now the greater challenge of ensuring that our society has a sustained impact on the field, that we continue to challenge the hidden assumptions of normal science and invigorate dynamically oriented approaches in psychology and other social and life sciences.

I will try to make good on my election promise of making research funding a more central concern to our society. It becomes increasingly difficult for beginning scholars to build a career in academic research and teaching without at the same time building a record of grantmaking, and we should try to do more to help them. I hope we will succeed in creating an expansion of our membership base in the next few years, particularly among the younger generation of scholars. The membership committee has been very active this year trying to broaden our membership base. SCTPLS will have advertisements in several newsletters, including one that specifically targets graduate students. There is also an ongoing discussion about more aggressive promotional campaigns to get the word out. I look forward to participating more extensively in those efforts.

I am excited about our ongoing collaboration with our European sister organizations on the organization of an international conference in the spring of 2006. The International Nonlinear Science conference in 2003 in Vienna was memorable

because of the opportunities it provided for exchanges with scholars from other countries, and because it enhanced our visibility. I hope there will be a replication that is as successful. Likewise, I hope we can turn the SCTPLS meeting in Denver in August 2005 into a big success.

I'd like to thank my predecessor, Holly Arrow, who has done a terrific job providing leadership to the Society over the last two years, and I look forward to working with her and the Executive Committee on the transition.

See you in Denver.

Matthijs Koopmans, Ed. D.

Stanley Awarded Coveted Boltzmann Medal

SCTPLS member H. Eugene ("Gene") Stanley, University Professor and Director, Center For Polymer Studies, Boston University, has been honored with the Boltzmann Medal for achievements in statistical physics. The Boltzmann medal is the highest honor that this topic area has to offer.

The Center for Polymer Studies Research Group web site (<http://polymer.bu.edu/research>) summarizes the group's work in polymer studies and statistical mechanics and in the development and application of modern methods of statistical mechanics. Research areas include Alzheimer's disease, cardiac dynamics, networks, economics, and liquid water.

In a recent interview in Nature, Prof. Stanley noted that his research hopes to uncover "...useful, 'hidden', scientific information that seems to be carried in fluctuations; to see the connections between different fields in which fluctuations phenomena are important...and fluctuations in systems near special 'critical points'"

The Boltzmann Medal encomium states: *For his influential contributions to several areas of statistical physics, including the theory of phase transitions and critical phenomena in spin systems and the percolation problem, and the application of these ideas to interpret the anomalous properties of liquid water.*

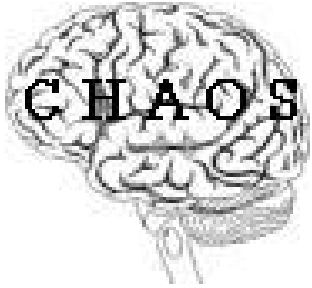


Meeting of the Minds in Milwaukee
Milwaukee Meeting of SCTPLS

As reported by Holly Arrow

SCTPLS held its 14th Annual Meeting in Milwaukee July 15-18, in excellent new facilities at the Raynor Library of Marquette University. This was the second Milwaukee conference—the 7th annual meeting in 1997 was also held here. A full schedule of four workshops was well-attended, and then we gathered Thursday evening for the opening keynote talk by Dr. Raima Larter of the National Science Foundation. Larter's integrative vision of common nonlinear dynamic patterns that hold for both chemical and personal transformations set the stage for a conference characterized by integrative conversations

among presenters, audience, and the whole gathering of conferees at the plenary sessions held in the late afternoon on Friday and Saturday, and facilitated by Program Committee members Holly Arrow and Péter Érdi.



The two-track program made choices easier for attendees and the presenters did a commendable job keeping their talks to the requested 20 minutes. Tech support was conveniently located just a few steps away at the library media center, which, along with our diligent timekeepers, also helped keep our speakers on track and the technology transitions smooth. This allowed plenty of time for substantive question and answer sessions between the formal talks, discussions that frequently wove insightful connective tissue between presentations. Kevin Dooley's presentation on the semantic evolution of NDPLS, for example, pointed out that articles in the journal show little evidence of linkage, suggesting that while NDPLS authors are talking about a rich array of topics, they are not necessarily talking to one another. We did talk to one another at this conference, across many disciplines, revealing in many cases how many of our members span multiple disciplines ourselves—including presenters such as Krystyna Laycraft, a physicist who is applying chaos principles to the development of new schools, and the multiple members whose formal training includes both mathematics and psychiatry (I counted three just at this conference).

Our speaker at the banquet was Glenda Eoyang, founder and Executive Director of the Human Systems Dynamic Institute, whose talk on boundaries and connections was accompanied by a spectacular series of slides of walls, fences, stiles, and gates in the Hill Country in Great Britain. A cash bar and poster session preceded the banquet, and many lingered with their dessert to review posters they had missed earlier because they were too busy socializing with beer or wine in hand. Some made their way to the adjacent bowling alley to finish off the evening.

Sunday morning closed out the conference with movies clips illustrating the insights offered by Dr. Michael Gillespie, the Louise Edna Goeden Professor of English at Marquette, on chaos and complexity in classic Hollywood cinema. This evolved into a spirited discussion on the traffic of terms, concepts, and findings in nonlinear dynamics between the sciences and humanities. We closed with a business meeting that was very well attended and also characterized by lively discussion. (*Minutes are printed in this Newsletter.—Ed.*)

SCTPLS Business Meeting Minutes Milwaukee, July, 2004

Submitted by Mary Ann Metzger, Secretary

Re-elected President Holly Arrow called the meeting to order in Milwaukee, WI, USA, on July 18, 2004, with brief remarks and asked for comments on the current conference. Comments by members: Marquette's technology and tech support should be considered a benchmark. The banquet worked out very well with an informal atmosphere incorporating posters and round tables. Bowling afterwards provided an opportunity for social activity. Afternoon plenary sessions with small groups were very useful. Respectful interdisciplinary discussion was a hallmark of the conference. **Motion: Minutes for the 2003 meeting are approved as published in the newsletter. Motion was approved.**

President Arrow asked for proposed locations and on-site volunteers for Conference 2005.

Locations nominated were: Seattle (Lipscomb), Eugene (Arrow), Denver, Southern California.

Standing Committee, Special committee, and other reports presented were (*See elsewhere in this Newsletter for extended reports—Ed.*):

Treasurer Stephen Guastello summarized the written report. The Society is now in the black by \$1466 and journal operation next year is expected to improve by \$3000. (*See, also, report in this Newsletter.—Ed.*)

Executive Committee: Chair Holly Arrow said during the previous year, the Executive Committee set up two special committees and approved a members-only listserv.

Committee motion: Special committees shall be reauthorized to continue their work. No vote was taken. Alternative motion: Members shall consider reauthorization after report of each special committee. Alternative motion adopted without objection.

Publications Committee: Chair Stephen Guastello summarized the written report on status of the journal, newsletter, website, books, and related matters.

Nominations and Elections Committee: Chair Jeffrey Goldstein read the report. Committee presents nominees for president, Matthijs Koopmans and Olga Mitina. Nominated from the floor was Michael Bütz. **Motion: Close nominations. Motion was approved. Committee motion: Unless otherwise specified by the assembly during the annual meeting, the Nominations and Elections Committee shall solicit nominees for vacancies on all standing and special committees. Depending on the nature of the committee being considered, the Nominations and Elections Committee shall announce criteria such as expertise, diversity of perspectives, and give as many members as practicable an equal chance to participate in governance. Committee motion was approved.**

INSC Committee: No report was given. **Motion: The INSC Committee shall be reauthorized to continue its work. Motion was approved. Motion: Membership and work activities of the INSC shall be reviewed by the Executive Committee with a decision to be made by September 1 to continue or to reorganize the committee membership. Motion was approved.**

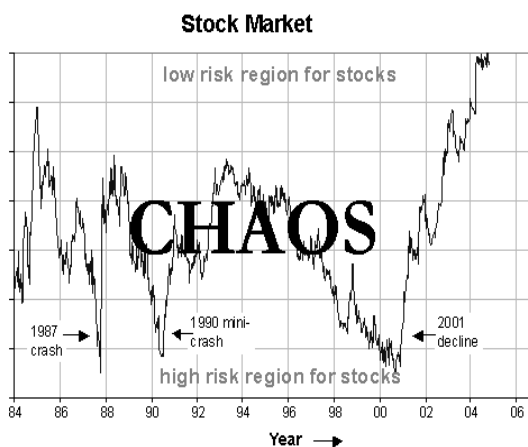
Education and Training Committee: Chair Larry Liebovitch spoke about the activities of the Committee. **Motion: The Education and Training Committee shall be reauthorized to continue its work. Motion was approved. Motion: The Society shall encourage workshops in**

conferences of other societies similar to a master tutorial. Motion referred to committee.

Membership Committee: Co-Chair Holly Arrow spoke about the activities of the committee. **Motion: The Membership Committee shall be reauthorized to continue its work. Motion was approved. Motion: The society shall establish a committee or officer of media relations, one or two members with appropriate skills, to bring news of the Society and the works of its members into the public media. Motion was approved.**

Constitutional Review Committee: President Arrow spoke as a member of the Constitutional Review Committee, saying the Committee's activities had been given in an article in the newsletter of January 2004. **Motion: The Constitutional Review Committee shall be reauthorized to continue its work according to its interpretation of its charge. No vote was taken. Alternative motion: Committee shall be dissolved and reliance shall be placed on Roberts Rules of Order to resolve any problems of interpretation of the constitution. No vote was taken. Second alternative motion: The Constitutional Review Committee shall report by November 1st to the Executive Committee, the report to include points addressed, recommendations and specific text. The report shall be sent by post to members. Second alternative motion was approved.**

Meeting was adjourned without objection.



Treasurer's Report, Submitted by Stephen Guastello

This report summarizes the financial results for the Society for the fiscal year ending 31 March, 2004. This was the year in which we published NDPLS for the first time ourselves. In past years, we paid Kluwer Academic Publishers in advance for the full amount of subscriptions, and most subscriptions were paid by the end of our fiscal year. This year we collected membership fees during the same time period, but the cost of delivery is spread out over the full year in roughly equal quarters. Thus there is a line item shown this year in the table below that reflects the expected costs of producing NDPLS through the end of calendar year 2004. It will not be necessary to make that separation next year. The cost of producing journals for our members and institutions is expected to drop by as much as \$3000 in calendar year 2005 due to a variety of factors.

Our membership currently stands at 278 active members as of 18 July, 2004. The membership committee's new retention ideas such as the two-year membership plan and the Rolling Start plan for new members have been popular, and should made significant strides in membership retention. We currently have members who are renewed through 31 August 2007. Membership fees that have been collected on behalf of future years are not reflected in this report, but will be reflected in next year's report.

Project	Net Income
2003 Conference in Boston	\$3459
Deposit on 2004 Conference in Milwaukee	(1000)
Institutional Subscriptions to NDPLS	4797
Membership fees, journal and Newsletter, general operations, less expenses	2478
Interest on accounts	1504
Expected cost of delivering NDPLS through the end of 2004	(9772)
Final net	\$1466

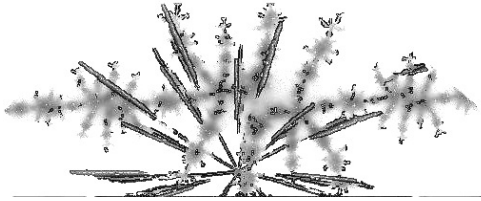
The Society set up two funds that went into effect for the new fiscal year. One is a student scholarship fund that offers free conference registration to students who are SCTPLS members and who submitted an abstract to give a presentation to the conference. The amount of the award is the posted amount for student conference registration. The Society seeded this fund with \$1000, and members have been asked to make donations.

The second fund is an international hardship fund that is designed to help people with financial restrictions attend the annual conference. Qualifying recipients can emanate from anywhere in the world and do not have to be students, but they must be SCTPLS members who submitted an abstract to give a presentation to the conference. Members have been asked to make donations. The amount of the award is the posted amount for student conference registration.

The status of the funds is shown in the table below as of 18 July, 2004. To date four student scholarship awards have been made. Two people were offered hardship awards, but the awards were declined by the awardees.

Student Scholarship Fund	
SCTPLS contribution	\$1000
Donations received	100
Awards made	(400)
Fund balance	\$700
International Hardship Fund	
Donations received	\$105
Awards made	0
Fund balance	\$105

Publications Committee Report Submitted by Stephen Guastello



The activities of the publications committee fall into four categories: *Nonlinear Dynamics, Psychology & Life Sciences (NDPLS)*, the *Society for Chaos Theory in Psychology & Life Sciences Newsletter*, the web site www.societyforchaostheory.org, other publications and media. The following report summarizes the accomplishments of the Publications Committee during the past membership year. There are no motions anticipated for the general assembly at this time.

NDPLS. The first three issues of the new self-published series of *NDPLS* have been printed. The first two were delivered on time, and the third is scheduled for mailing on July 6. Electronic access for institutional subscribers was ready on time for the first issue. We are currently in the last stages of our application for a non-profit organization periodical permit from the United States Postal Service. We are currently working with a standard mail permit, which give us postage advantages over the regular rates. This permit can be used for other SCTPLS promotional mailings so long as the weight or volume is sufficiently great and we are not under time pressure to get the material delivered.

Per our agreement with Kluwer Academic Publishers, we have obtained the list of institutional subscribers that they had on record. We have also taken steps to recruit new institutional subscribers. At the time of this writing, our institutional subscription rate is 7% greater than Kluwer's last count. Although we did lose 6 subscriptions from Kluwer's list, we were successful in replacing them with new subscribers. It has come to our attention that many libraries are under the impression that they still have access to *NDPLS* through a bundling agreement with Kluwer; steps have been taken to inform libraries and brokers that this is not the case for 2004 and beyond.

NDPLS has successfully completed the transition with our three primary indexing services: *PsychINFO*, *Medline*, and *JEL/Econlit*. *NDPLS* has applied for inclusion in ISI citation databases; the results of these efforts will not be concluded until the end of 2004. We do anticipate some delays related to the shifts in the business activities of ISI itself. For instance, the contents of *PsycINFO* are now distributed through ISI's indexing services, which is a step forward for any journal currently indexed by *PsycINFO*. The *NDPLS* editor and his associates have, meanwhile, computed the journal citation levels for *NDPLS* using the ISI rubric. Citations are up 43% this year (as of March, 2004) over the year before, and greater than citation levels for benchmark journals such as *Psychological Methods*, and *Physica D* (based on last year's published rates). Additional details may be found on www.societyforchaostheory.org/ndpls/, select Citations and Indexes.

A delivery platform was built on the on the *NDPLS* web site to allow access to *NDPLS* articles for our institutional subscribers. The platform shows articles in PDF format,

abstracts, and supplementary graphics. Access to articles is by paid subscription and IP recognition only, except for the promotional access described below, or articles of an editorial nature. Access to abstracts and supplementary graphics is free to all visitors. The supplementary graphics are colorized versions of the grayscale printed versions and are offered only if the color content could add a meaningful amount of information to the graphic.

The first phase of building our own indexing strategy (see January 2004 *Newsletter*) has been completed. The key words appearing below the abstracts to *NDPLS* formed the basis of the index lexicon. The index to articles that were published 1997-2003 will appear in text in the October, 2004 issue of *NDPLS*. A tabular version of the same index is now available on the *NDPLS* web site; see Citations and Indexes. This index will be updated periodically beginning with the 2004 articles. We received a volunteer to help with the task of maintaining the index system.

NDPLS will be publishing approximately 540 pages of material in 2004. This expansion represents a 46% increase over the last years that were published by Kluwer. The expansion was planned as a temporary measure to speed the publication of backlogged articles that were accepted for publication. The last few articles from the backlog will appear in January, 2005. The manuscript inflow for 2004 has been in the normal range for a year in which there was no call for papers in effect for a special topic issue.

Four activities were undertaken to expand the institutional subscription base of *NDPLS*. First, the journal was displayed (along with ordering information) at five national or regional conferences of professional librarians. Two more conference appearances are scheduled between now and January 2005. This project was made possible with the help of a subscription broker.

Second, direct letters were sent to 75 organizations and government agencies that claimed to use nonlinear dynamics in their work. The Editor sent the letters personally.

Third, members have volunteered to help by displaying copies of *NDPLS* at conferences they were scheduled to attend along with membership brochures. Both individual and institutional responses are desirable, of course.

Fourth, we instituted a program for limited free access to *NDPLS* articles beginning in early June this year. Visitors can retrieve two free PDF files for articles that are not already listed as free material. To date we have had about 50 visitors who were not already members. About 40 of them were people who responded to the e-mail announcements that we sent directly. The remainder came from forwarded e-mail and literature searches, which was good to see. We hope this portion of the visits will increase and translate into memberships and institutional subscriptions. Our next task is to follow up with the visitors and encourage them to do one or the other.

The *NDPLS* editorial board has had three new appointments and two retirements last fall, as described in the January 2004 *Newsletter*. Dr. Richard P. Taylor (University of Oregon) has been appointed special editor in charge of soliciting the art feature article and cover graphics for 2006. Dr. Taylor's own work will appear on the cover of *NDPLS* in 2005.

A call for reviewers went out to the general membership and extended lists of SCTPLS contacts in the Fall. We received four dozen positive responses. The Editor is

assimilating as many people as possible for book and manuscript reviews.

Newsletter. The *Newsletter* has started to expand its page count once again, although it has not yet regained its peak level. Members have responded favorably to the call for material that appeared as part of the Publication Committee's interim report in the January 2004 *Newsletter*. The *Newsletter* continues to seek news of developments in dynamics worldwide, news from members, news about members' accomplishments, listings and brief commentary for the *Nonlinear Dynamical Bookshelf* feature, and graphics.

The Publications Committee has started the process of archiving old *Newsletters* on the Society's web site. Because the archive is intended for historical purposes rather than a news service, there will be a three-year moratorium from the date of initial publication on the inclusion of an issue of the *Newsletter* on the web site.

The *Newsletter* accepts advertising for products and services that could be of interest to the SCTPLS members. To date it has received very few. As a first step toward improving this situation, a table of rates is now posted on the *Newsletter* portion of the SCTPLS web site.

Web Site. The SCTPLS web site was overhauled this year to accommodate growing needs in several areas. In the spirit of "the medium is the message," the news items that appear on the first page of the web site and in the news archive that starts on the News page are selected for interest to the outside world as well as visiting members. These news items are usually only one or two sentences long.

The web site houses the delivery platform for the electronic subscriptions to *NDPLS*. The *NDPLS* portion of the site was redesigned last summer and the files were refreshed.

The *Newsletter* now has its own section of the web site with a design that is compatible with the *NDPLS* and Conference portions of the site. The archives will eventually be stored here. Titles of *Newsletter* articles are now available, however.

Books and other media. No proposals for books or other media have been brought to the attention of the Publications Committee. The Chair of the Education Committee was invited to work with the Publications Committee on possible projects that might arise from the Education Committee's work.

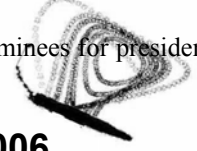
Nominations and Elections Committee Report

Submitted by Jeffrey Goldstein, Chair, Mary Ann Metzger, Secretary, Charles P. Nelson, Member

The first item of business is a motion for approval **MOTION:** Unless otherwise specified by the assembly during the annual meeting, the Nominations and Elections Committee shall solicit nominees for vacancies on all standing and special committees. Depending on the nature of the committee being considered, the Nominations and Elections Committee shall consider criteria such as expertise, diversity of perspectives, and giving as many members as practicable an equal chance to participate in governance. **RATIONALE:** When authorizing committees at the business meeting, those present often do not want to take time to name the members, noting that some

eligible members may be absent. The procedures of the N & E Committee ensure that all eligible members will be notified of the opportunity to serve. This method was used during 2003-2004 for all standing committees, one special committee, and the scientific panel for the conference.

The second item is the list of nominees for president: See *Minutes of Meeting, above, Ed.*



INSC Starts Rolling for 2006

Action has started on the Second International Nonlinear Science Conference which should be taking place in Europe in February or March, 2006. The Nominations and Elections Committee put out a call for volunteers this month, and several members have come forward offering some very attractive locations. There are many variables to consider before we know where the conference will be held for certain, but the initial options are very promising. More news on these developments will appear in the *Newsletter*, of course.

The INSC conference will feature original research in all areas of nonlinear dynamics and its applications to psychology and the life and social sciences. Those of us who had the opportunity to attend the first INSC in Vienna, Austria in Feb., 2003 will remember an excellent attendance, a stimulating scientific program, a charming ambiance, and many fascinating people whom we would not have had a chance to meet otherwise.

New Media Relations Committee

Mark Filippi, Daniel Miller, and George Muhs will comprise the new SCTPLS Media Relations Committee. The objective of this committee is to garner publicity for Society events and accomplishments, and the accomplishments of its members, in newspapers, magazines, and internet-based news sources that are used by journalists. The new committee has not yet chosen a chair. A version of the ad is included on the back page of this newsletter.

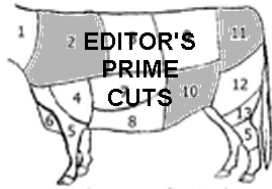
New Ad Campaign Lifts Off

The SCTPLS Membership and Executive Committees launched a new print ad campaign this fall with the intention of reaching new potential members and conference-goers, especially students. The first ad will appear in the January 2005 of *gradPSYC*, which is published by the American Psychological Association for its 55,000 graduate student members. Other ads on the theme, "Tired of Normal Science?" will feature the 2005 conference venue and are planned for subsequent issues of *gradPSYC* and the American Psychological Society's *Observer*. The fractal background is yet another piece of Clint Sprott's computer handiwork.

Each year SCTPLS distributes a poster to all its members who have renewed their membership in time for the January 2005 mailing. This year's poster will be full color once again, with many of the same graphic elements. The committees hope that our members will mount the poster on their office doors to attract the attention of fellow researchers and students who are looking for interesting projects. Our course, we fully

understand that many of our members would prefer to cherish their annual posters by mounted them on the walls of their personal pop art galleries and rumpus rooms, right next to the portrait of Grandma!

New Newsletter Feature EDITOR'S PRIME CUTS



We sometimes run across material we believe may be of interest to Newsletter readers. We will include excerpts from these items, from time to time, to what readers interests. If you have material you would like us to consider, please contact us

at rjporter@mindspring.com. —Bob Porter, Editor

This months “Prime Cuts” are from Franco Orsucci's chapter *Nonlinear Dynamics In Language and Psychobiological Interactions* in **The Complex Matters of the Mind** (F. Orsucci, Editor; World Scientific, 1998.)

“Since Samuel Taylor Coleridge coined the term 'psychosomatic' in 1796, the history of this area of studies on the “the mysterious leap from the mind to the body” has been developing in balance between several paradoxes. It has been presented as a holistic discipline, interested in the study of the mind-body global system, but it has often been reduced to the deterministic search for hypothetical events in the virtual psyche-soma interface...

“Sigmund Freud gave us a framework to manage this paradox in the “G-Draft Melancholy” (*a letter to Fliess—Ed.*)...The elements of the model [are] 1) an object in the external world; 2) an object in a favorable position outside the Ego, in the body; 3) and end-organ, a somatic source, and a spinal center, in the body-Ego; and 4) a psychic sexual group, in the psychic Ego. These are the main stations in a circuit performed by a vector: sexuality, with its drive, goal, source, and eventual obstacles...

“It is amazing how this dynamic and complex model has been neglected in the history of psychoanalysis and psychosomatics. This model is entirely based on drive, movement, and loops, while other famous Freudian models are more deterministic and stable...

“Freud was well aware of the features of psychic dynamics for which he coined the specific term *Überdeterminierung*, or over-determination: every unconscious formation is a multicausal derivative; and every derivative is linked to multiple unconscious elements...[it is]...the non-Euclidian and interwoven stratification of meaning, several interpretations are allowed and the cannot be simple defined criteria to determine the correct one...

[More recent formulations represent] “progress of science regarding the various domains in the body-mind framework...[and opened].the way for recognizing that the “psychosomatic field” can be understood only in terms of multicausal processes and feed-back loops...

[For example,] “Walter Freeman asserts that from a psychobiological perspective he can distinguish two forms of

self: the “objective self”, constituted by brain dynamics, and the “subjective self” based on awareness. These two forms fuse in the process of perception [Freeman writes] “by which global patterns of activity come briefly into focus at eh point in a trajectory, collecting all residues of past experience, and influencing by reactive transmissions all that is to come in the life span of an individual...”

[This means] “that 'mental derivatives' (*a la* Freud)..should be considered as dynamic structures, as Fairbairn suggested years ago in the psychoanalytic field...”

Prof. Orsucci develops this theme further, noting that Freud dropped his emphasis on what we now refer to as complex dynamics, in favor of a focus on Stability and Balance of Forces in the “homeostasis” popular in physiological theories such as that of Cannon. He suggests a return to Freud's first perspective may help us better understand psychology and psychosomatics since the homeostatic theories emphasize the health of constancy, and “...the idea that disease and other perturbations are likely to cause a lack of regularity, [whereas] Non Linear Dynamics predict just the opposite: that a variety of diseases or disturbances lead to [and un-healthy] loss of complexity.” (Used with permission of the author.—Ed)

ANNOUNCEMENTS

Fred Abraham announces the preliminary plans for the popular **Winter Chaos Conference/Snowflake Forum** sponsored by the Blueberry Brain Institute. Fred says plans are underway for a meeting to be held in the Springfield MA area during the Feb. 25-27 long weekend . Information about the conference and updates can be found at:
<http://www.blueberry-brain.org/>



Members **Dick Bird** and **Franco Orsucci** report continued interest in their new books:

CHAOS AND LIFE: COMPLEXITY AND ORDER IN EVOLUTION AND THOUGHT Richard J Bird Columbia University Press 2004, 336p, p/b ISBN 023112662X £20.50, US\$ 29.95 From review by Jane Lorimer: *This interesting book by Northumbria University senior lecturer Richard Bird provides food for thought on perennial questions about order and design in nature, and their resonance with the mathematical mind. The first six chapters are very readable introductory accounts of the more familiar tenets of complexity, fractals and "the mathematics of chaos" (Stewart, 1990). True to the book's title these mathematically-based paradigms are related to the life sciences, highlighting the increasingly familiar cry of a "Crisis in Biology" which is "hamstrung but two approaches that ... will not advance it." The first is the "chemical thinking" of molecular biology and genetics, and the second is the neo-Darwinian theory. Readers familiar with the biophysical models of Mae-Wan Ho and the electromagnetic body model of Zhang (Network 81) will likely agree. But, Bird's approach resonates even more directly with Brian Goodwin's work on "the evolution of complexity." However, unlike Goodwin (1996) who focuses on detailed empirical examples,*

and never mentions fractals, Bird is broadly theoretical, keen on fractals and ultimately deeply interested in models of iteration and recursion, explored in the latter half of the book.

BIOETHICS IN COMPLEXITY: Foundations and Evolutions edited by Sergio De Riso (Catholic University, Italy) & **Franco F Orsucci** (Catholic University, Italy & Institute for Complexity Studies, Italy) Imperial College Press, London 100pp Pub. date: Jun 2004, ISBN 1-86094-399-3 US\$34 / £25 This publication reviews the foundations of ethics in the history of Western thinking. It connects these

Fall Book Catalog and Free Stuff

Once again SCTPLS is offering its members discount prices on popular nonlinear dynamics books. The catalog announcement will go out to members by email in early November.

This year we are offering free stuff with qualifying purchases. Be sure to act quickly, while supplies last.

philosophical matters with evolutionary theory and contemporary bioethics, biology and medicine, posing new questions for the current dialectics between categorical and contextual ethics. Novel answers are presented from complexity theory — self-organization and nonlinear dynamics. Contents: On a Possible Foundation of Ethics (S De Riso & C Cuomo) In Darwin's Wake, Where Did I Go? (D C Dennett) Post-Kantian Problems of an Ethics of the Good Life and the Foundations of Discourse Ethics (K-O Apel) Emotion, Metaphor and the Evolution of the Mind (A H Modell) Ethos in Action (F F Orsucci) Readership: Upper level undergraduates, graduate students, lecturers, and researchers in philosophy, psychology and life sciences as well as industrialists and politicians.

David Goodman who decided to become a test pilot for mental science in 1977, has, after 27 years, reports on his 22,000 dreams recorded on consecutive nights. His presentation is at the 34th Annual meeting of the Society for Neuroscience on October 23 in San Diego. He reports on seven biological rhythms that could be teased from the data which he hopes to make available to colleagues sometime next year. The analytic software being devised originates in a DNA profiling technique. Dr. Goodman may be contacted (*even when asleep!*—Ed): davegoodman@juno.com).

Kurt Richardson, Managing Editor, writes to tell us of the upcoming re-launch of the international journal **EMERGENCE**. The subscription form can be downloaded from: http://emergence.org/Subscription_form.pdf (See *Dynamics Bookshelf*, below, for more information.—Ed.)

Katie Whitehead, marketing assistant with the publishers Taylor and Francis, writes to tell us of the publication of the **Journal of Difference Equations and Applications**. The Journal presents state-of-the-art papers on difference equations and the academic, pure and applied problems in which they arise. The journal is composed of original research, expository and review articles, and papers that present novel concepts in

application and techniques. Further information can be found at <http://www.tandf.co.uk/journals/titles/10236198.asp>

Ever alert NDPLS Editor **Stephen Guastello** notes that **Clint Sprott** and his NDPLS article on romance was featured in a newspaper in France. (of course, mon ami!). See *Liberation* 09/20/04 review of Sprott paper of Dynamical Models of Love

New 2-Year Membership Option

Members will have the option of renewing their membership for two years, beginning with this fall's membership drive. The SCTPLS executive committee recognizes that "time flies" and the new option will be both convenience and cost-efficient for all members, especially the students. The students can now renew for two years at a total cost savings of \$30 relative to the one-year student rate. The idea originated as part of a broader interest in getting more students involved in nonlinear dynamics studies.

WHO'S WHO IN THE SOCIETY

President 2004-2005

Holly Arrow, harrow@darkwing.uoregon.edu

Immediate Past President

Dick Bird: dick.bird@unn.ac.uk

Newsletter Editor

Bob Porter, rjporter@mindspring.com

Treasurer and Journal Editor

Stephen Guastello, Stephen.Guastello@marquette.edu

Secretary

Mary Ann Metzger, metzger@umbc.edu

Web Site Manager

Terrill Frantz, terryl@org-sim.com

CHAOPSYC Managers

Bob Porter: rjporter@mindspring.com

Fred Abraham, abraham@sover.net



Compiled and Edited by Stephen Guastello

New Books

Jirsa, V. K., & Kelso, J. A. S. (2004). (Eds.). **Coordination dynamics: Issues and Trends**. NY: Springer-Verlag. Coordination in this context refers to psychomotor coordination and kinesthetics.

Reiners & Driese (2004). **Transport Processes in Nature: Propagation of Ecological Influences through Environmental Space**, Cambridge: Cambridge Press. is an excellent overview of how various events propagate through and shape ecological systems. They present a system for its analysis that includes four components: initiating events or conditions, vectors conducting influences through space; entities that are transported; and the consequences of the transport system. Time plays a very important role in the analysis. The last half of the book reviews a number of transport computer models. Simulations for each are offered. ArcView GIS is required to view them. GIS plays a very important role in the work. This work is of interest to me in that it helps to further specify and provides tools for investigating what I call a time-ecology. Second, members of the list might be interested in the book because it helps reveal the dynamics of very large systems. --Gus Koehler, Ph.D.

Rutkowski, L. **Flexible Neuro-Fuzzy Systems Structures, Learning and Performance Evaluation**. Dordrecht & Boston: Kluwer. ISBN 1-4020-8042-5 Provides methods and examples for application of pattern recognition and simulation in a variety of disciplines including economics, and bioengineering. The first textbook in the professional literature on powerful flexible fuzzy systems. --RAMG

New Journals

The Annual Workshop on Economics with Heterogeneous Interacting Agents has evolved into a profession society, headquartered in Kiel, Germany, <http://www.bwl.uni-kiel.de/vwlinstitute/gwrp/wehia/home.htm> under the name of **Economic Sciences with Interaction Agents**. A journal of the same name is planned to be published from Springer Heidelberg, beginning in 2006.

I am writing to you today to remind you of the upcoming re-launch of the international journal *Emergence*. After two years as an electronic-only edition we are very pleased to announce that *Emergence* is going back into print. *Emergence* is also undergoing a substantial face-lift including a change of name to ***Emergence: Complexity and Organization***. This new journal is emerging, not out of the ashes of the old, but out of the interaction of the hard and cutting-edge thinking that went into *Emergence* and a new, diverse editorial staff, some of whom are continuing from *Emergence* while others are fresh to the new venture. We have three new editors-in-chief to add to one carryover from *Emergence*: **Peter Allen** of Cranfield University, UK, and the Complexity Society: **Jeffrey Goldstein** of Adelphi University, USA, the Institute for the Study of Coherence and *Emergence*, and the Society for Chaos Theory in Psychology and the Life Sciences; and **David Snowden** of the internationally based Cynefin Centers; will be joining with **Michael Lissack** of the Institute of the Study of Coherence and

Emergence and founding publisher of *Emergence*. – Kurt Richardson.

Evolutionary and Institutional Economics Review <http://www.econ.kyoto-u.ac.jp/~evoeco/eier.html> will debut in 2005. It is sponsored by the Japanese Association for Evolutionary Economics, and will be published by Springer.

Institute for Physics Published launched **Journal of Neural Engineering**, a major new print and electronic publication. This peer-reviewed quarterly will publish full-length articles of the highest quality and importance in the field of neural engineering at the molecular, cellular and systems levels. This unique journal will support the needs of the research community in this emerging field by providing a forum where neuroscientists, neurobiologists and engineers can publish their work in one periodical. <http://www.iop.org/EJ/journal/-page=scope/1741-2552/1>. Electronic access is free in 2004, and print evaluation issues are also available upon request at no charge.

