

- 11:30 - 12:00 N Co-Host Plenary Speech: General Evolution Research Group (GERG) – Ervin Laszlo, Peace University of Berlin, Club of Budapest and Editor *World Futures*, “The Evolutionary Challenge of the Third Millennium”
- 12:00 - 1:15 pm **Lunch:** (*North Hub Cafeteria*) (Lunch with Rapoport, Chaisson, Wilson, Szathmáry, Casti)
- 1:15 - 1:45 Co-Host Plenary Speech: Infodynamics Group – Stanley N. Salthe, Professor Emeritus, City University of New York, Visiting Scientist, Biological Sciences, State University of New York (Binghamton), “What is Infodynamics”
- 1:45 - 2:15 Co-Host Plenary Speech: Epic of Evolution Society (EPIC) – Brian Swimme, Professor of Cosmology, California Institute for Integral Studies, “Is Science a Source of Wisdom?”
- 2:15 - 3:30 Special Symposium: The Art and Science of Forecasting in the Age of Global Warming, Chair – Harold Linstone,
Presenters:
1. Harold Linstone, Professor Emeritus, Portland State University System Science Program, “Technology Forecasting and Assessment Tools: The Changing Scene”
 2. Joseph Coates, President, Coates and Jarratt, Inc., “Making Forecasts Useful”
 3. Don Kash, Hazel Professor of Public Policy, George Mason University, “Complexity Suggests a Different Approach to Global Warming”
 4. Alan Porter (and others), Technology Policy and Assessment Center, Georgia Institute of Technology “On the Future of Technology Forecasting and Assessment”
- 3:30 - 3:45 **Break** (Soft Drinks, Coffee, Snacks)
- 3:50 - 5:50 **Concurrent Panels**
- **Special Symposium, Plenary Room:** Capitalism in the New Millennium: The Challenge of Sustainability, Chair – Enrique Herrscher (*Room L-72*)
Presenters:
 1. Bill Shireman, President and CEO, Global Futures, and Future 500
 2. Mike Jackson, Director, Business School, University of Hull
 3. William Brehm, Chairman, Committee on Economic and Monetary Reform, Editor, *Economic Reform*
 - Discussion of Special Symposium: The Art and Science of Forecasting in the Age of Global Warming, Chair – Harold Linstone (*Room A-60*)
Discussants: H. Linstone, J. Coates, D. Kash and A. Porter
 - Epic of Evolution Society (EPIC) Roundtable: The Thermodynamics of Evolution, Chair – Larry Edwards (*Oakham Room G*)
Discussants: E. Chaisson, B. Swimme, L. Duncan, L. Edwards
 - Infodynamics Group, Chair – Stanley Salthe (*Oakham Room A*)
 1. J. Collier and M. Burch, Symmetry, Levels and Entrainment
 2. N. L. Johnson, A Simple Agent Model for a Dynamical, Evolutionary System: Insights into Diversity and Natural Selection
 3. M. Banerjee, Developmental Systems Theory and the Geometry of Vagueness
 4. D. R. Brooks, Evolution in the Information Age
 - Research Committee on Sociocybernetics (I), Chair – Richard Lee (*Oakham Room B*)
 1. T. Devezas and J. Corredine, The Biological Determinants of Long Wave Behavior in Socioeconomic Growth and Development
 2. G. De Zeeuw, On Constructivism: Complete Collectives and the Evolution of Research
 3. D. Laflamme, The Attestation of Ethical Ability and Intention: An Autopoietic Process?
 - Roundtable: The Prospects for Higher Education Programs (or Webversities) with Systemic Core Curricula, Chair – Gary Boyd (*Oakham Room C*)
Discussants: S. Umpleby, G. Boyd, R. Ison, L. Troncale.
 - Centre for Applied Development Studies (CADS): Chair – Costas Tsouvalis (*Oakham Room D*)
 1. C. Tsouvalis, Organizational Change Management: Culture, Power, and the Agonistic Subject

2. M. Milanzi, Self-Reliant Agriculture in Tanzania: Appreciation and Subjectivisation in Soft Systems Methodology
 3. J.E. Yu, Towards Rhizomatic Pluralism: Enhancing Pluralism into Post-Structuralism
- Centre for Systems Studies (University of Hull) – Systemic Intervention for Sustainability: Possible Synergies Between Complex Systems Theory and Critical Systems Thinking, Co-Chairs – Peter Allen, Gerald Midgley (*Oakham Room E*)
 - Swedish Operational Research Association (SORA), Chair – Stig Holmberg (*Oakham Room F*)
 1. D. M. Eriksson, B. Bergvall-Kåreborn, and A. Mirijamdotter, Multimodal Investigation of a Business Process and Information System Re-Design: A Post-Implementation Case Study
 2. R. Peszkowski, M. Pettersson, D. M. Eriksson, A Critical Investigation and a Proposition for Modification of W. Ulrich’s Critical Systems Heuristics
 3. B. Lind and L. Larserik, From Information to Database: A Structured Approach
- 6:00 - 8:00 **Dinner:** (*North Hub Cafeteria*) (Dinner with Fey/Lam, Simonovic; Linstone, Coates, Kash, and Porter; Shireman, Jackson)
- 6:15 - 7:45 **Video Interviews with Past Presidents:** Stafford Beer, Anatol Rapoport, Ilya Prigogine (*Pittman Hall Cafeteria*)
- 8:00 - 9:30 **Workshops/Discussion Panels**
- ISSS Special Roundtable, The Biological Sciences as Systems Sciences, Chair – Tony Trewavas (*Oakham Room A*)
Discussants: Tony Trewavas, Eörs Szathmáry, Len Troncale, David Sloan Wilson
 - ISSS Past Presidents Roundtable, Chair – Harold Nelson (*Oakham Room G*)
Participants: Anatol Rapoport, Howard Odum, Hal Linstone, Yong Pil Rhee, Ervin Laszlo, G.A. Swanson
 - General Evolution Research Group (GERG), The Crisis in Evolution Theory (I): What Should a Full Spectrum, Action-Oriented Theory Look Like?, Chair – David Loye (*Oakham Room B*)
 1. D. Loye, Darwin’s Lost Theory: Implications for Scientific and Social Revolution, and the Crisis in Evolution and Need for a Full Spectrum, Action-Oriented Theory and Story
 2. E. Chaisson, The Lessons of Cosmic Evolution
 3. S. Salthe, Reclaiming Our Lost Heritage
 4. R. T. Bradley, Brain, Mind, Love and Power in Evolution

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| TUESDAY, JULY 18, 2000 |
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- 7:15 am - 8:30 am **Breakfast Roundtable** (*Pittman Hall, Room I-200*)
- 8:00 - 8:30 **Registration/Continental Breakfast/Books Display** (*Room A-250 and nearby*)

WORLD CONGRESS PLENARY SESSION DAILY THEME: THE DYNAMICS OF COMPLEX SYSTEMS (*Room L-72*)

- 8:30 - 9:00 Keynote Speech: Yaneer Bar-Yam, President, New England Complex Systems Institute, “Describing Complex Systems on Multiple Scales: Quantifying the Complexity of Society”
- 9:00 - 9:30 Co-Host Plenary Speech: American Society for Cybernetics (ASC) – Humberto Maturana, Department of Biology, University of Chile, “Conservation and Change”
- 9:30 - 10:00 Co-Host Plenary Speech: Washington Evolutionary Systems Society (WESS) – Jerry Chandler, Krasnav Institute for Advanced Study, George Mason University, “The Creativity of Organizing Co-extensive Operations in Complex Systems Theory”
- 10:00 - 10:30 **Break** (Coffee, Breakfast Items)
- 10:30 - 10:45 Co-Host Plenary Speech: Open University Systems Discipline – Ray Ison, Centre for Complexity and Change, The Open University, “Systems at the UK Open University”

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| 10:45 | - | 11:00 | Co-Host Plenary Speech: Sociocybernetics Research Committee – Richard Lee, Fernand Brandel Center, State University of New York (Binghamton), “The History, Goals, Accomplishments and Future Plans of Research Committee, RC51” |
| 11:00 | - | 11:30 | Co-Host Plenary Speech:, Swedish Operational Research Association – Stig Holmberg, Lecturer, Dept. of Informatics, Mid-Sweden University, “OR2000: The Challenges for the New Millennium” |
| 11:30 | - | 12:00 N | Co-Host Plenary Speech: Institute for Law and Systems Research (ILSR) – Paul Wohlmuth, Director, University of San Diego School of Law, Film: “Infrastructure” |
| 12:00 | - | 1:15 pm | Lunch: (<i>North Hub Cafeteria</i>) (Lunch with Bar-Yam) |
| 1:15 | - | 2:15 | Special Symposium: The Future of the Systems Sciences Presenters: <ol style="list-style-type: none"> 1. Len Troncale, Chair, Biological Sciences and Director, Institute of Advanced Systems Studies, California State Polytechnic University 2. Mike Jackson, Professor of Management Systems and Director, Hull University Business School |
| 2:15 | - | 3:30 | Special Symposium: Global Issues in the New Millenium (Sponsored by The Council on Global Issues CGI), Chair – Helmut Burkhardt Presenters: <ol style="list-style-type: none"> 1. Helmut Burkhardt, President, Council on Global Issues (CGI), “On The Necessity of Global Governance” 2. Colin Soskolne, Faculty of Medicine and Dentistry, University of Alberta, “Global Ecological Integrity, Global Change and Public Health” 3. Steven Kurtz, Canadian Association for the Club of Rome, and Global System Centre Development Committee, “Feedback and Dis-equilibrium in Human Overpopulation” 4. David Woolfson, World Future Society, and Canadian Club of Budapest, “Humanity’s Evolutionary Future” |
| 3:30 | - | 3:45 | Break (Soft Drinks, Coffee, Snacks) |
| 3:50 | - | 5:50 | Concurrent Panels <ul style="list-style-type: none"> • American Society for Cybernetics (ASC) (I), Ethics and Environment, a Circularity in Conservation and Change, Chair – Kathleen Forsythe (<i>Oakham Room A</i>) <ol style="list-style-type: none"> 1. H. Maturana, Ethics, a Matter of Conservation and Change 2. L. Gass, Education, Ethics, and Environment 3. E. Whitney-Smith, Extinctions, Nothing Fails Like Success • Infodynamics Group, Chair – Stanley Salthe (<i>Oakham Room C</i>) <ol style="list-style-type: none"> 1. K. Matsuno, Energy in Thermodynamics and its Informational Capacity 2. E. Taborsky, The Complex Information Process 3. S. Salthe, What is Infodynamics? • Centre for Systems Studies (University of Hull), Chair – Gerald Midgley (<i>Oakham Room D</i>) <ol style="list-style-type: none"> 1. L. White, Diverse Unity: A Case-Study in the use of Multi-Methodology to Develop a Health Forum 2. P. Adman, An Exposition of Ways of Pursuing Critical Systems Thinking and Practical Implications 3. D. Torres, Intervention Issues in IT 4. Z. Wang, Meta-Decision-Making As Management of Knowledge System 5. M. Yolles, Viable Knowledge Management • Research Committee on Sociocybernetics (II), Chair – Richard Lee (<i>Room L-477</i>) <ol style="list-style-type: none"> 1. J. Little, Using Luhmann: Assessing the Utility of Luhmann’s Social Systems Theory 2. R. Lee, Local Action, Global Consequences? Agency and Structure in Contemporary Social Change 3. L. Leydesdorff, A Model Engine for 'Lock-in', 'Break-out', and the Dissemination of Technological Culture |

- Swedish Operational Research Association (SORA) (II), Chair – Stig Holmberg (*Oakham Room E*)
 1. S. C. Holmberg, The Time Dimension in Complex Multi Criteria Spatial Decision Making
 2. A. Hakansson, Multiple Value Sets in Physical Planning and Decision Making
 3. V. Asproth, Supra System Considerations in Spatial Decision Support
 4. P. S. Agrell, A Constructivist Decision Support
- Open University, Chair – Ray Ison (*Oakham Room B*)
 1. R. Ison, Introduction
 2. G. Paton, The Process of Experiencing Systemic Thinking: The Evolution of a Novel Short Residential Course for the Open University
 3. A. J. C. Wright, Stress: The Source of Living and the Cause of Dying
 4. R. Armson and S. Bell, Managing Complexity – A Systems Approach: An Introduction to T306 – Systems Teaching in the UK
- Korean Society for Systems Research – Evolutionary Dynamics of Social and Political Systems, Chair – Yong Pil Rhee (*Oakham Room G*)
 1. H. C. Park, The Governmental Organization as an Autopoietic System: A Conceptual Basis for the Restructuring of the Public Bureaucracy in Korea
 2. J. H. Byeon, Evolutionary Process of Democratic Consolidation in Korea
 3. H. K. Kwon, Dynamic Change in North Korean Political System: Compels Systems Approach
- The Council on Global Issues (CGI) – Systemic View of Global Governance Symposium, Co-Chairs – Helmut Burkhardt, Dennis Oku (*Room L-375*)
 1. D. Oku, Globalization and Governance: The New Paradigm
 2. H. Burkhardt, C. Lerche, J. Morton-Marr, D. Oku, The Mandate and the Instruments of Global Governance
 3. J. Morton-Marr, The Global-Local Connection
 4. G. Davis, Is Systems Science Sufficient for Human Survival?
- Washington Evolutionary Systems Society (WESS) – The Future of Man and Mind, Chair – Jerry Chandler (*Oakham Room F*)
 1. J. L. Chandler, Is Information a Change of a Relation?
 2. A. Juarrero, A Complex Dynamical Systems Reconceptualization of Mental Causation
 3. J. G. Long, Why We Don't Understand Complex Systems
 4. L. deBivort, Systems Domination Versus Human Evolution
- Remote Video Interactive Link with Peru Participants, Chair – G. A. Swanson (*Room L-72*) ((?))

6:00 - 8:00

Dinner: (*North Hub Cafeteria*) (Dinner with Jackson, Troncale; Burkhardt, Soskolne, Kurtz, Woolfson)

6:15 - 7:45

Video Interviews with Past Presidents: James Miller and Kenneth Boulding (*Pittman Hall Cafeteria*)

8:00 - 9:30

Workshops/Discussion Panels

- **Special Presentation:** World Organization of Systems and Cybernetics (WOSC), An Evening with Stafford Beer, (*Room A-60*): Presentation of Gold Medal to Candace Pert for her pioneering work into the mind-body relationship
- Council on Global Issues (CGI) Workshop, Chair – Helmut Burkhardt (*Oakham Room G*)
- Infodynamics Discussion Group, Chair – Stanley Salthe (*Oakham Room A*)
- Open University, Exploring Systems Practice at the Open University, Chair – Ray Ison (*Oakham Room B*)
- Discussion Workshop: Washington Evolutionary Systems Society (WESS), Chair – Jerry Chandler (*Oakham Room C*)
- American Society for Cybernetics (ASC), Workshop, Co-Inspiration, A Path of Being and Doing, Facilitators – Pille Bunnell and Kathleen Forsythe (*Oakham Room D*)

- Epic of Evolution Society (EPIC) – Discussion of Brian Swimme Plenary, Moderator – Charlene Spretnak, Distinguished Adjunct Professor in the Philosophy Cosmology and Consciousness Program, California Institute of Integral Studies (*Oakham Room E*)
- Poster Display Session, Coordinator – Allenna Leonard (*Atrium Near A-250*)
Note: Poster presenters may be in attendance for one-on-one conversations with conference attendees
 1. J.-C. de Maneville, Does a Company Have a Frontier? An Inner and an Outer?
 2. C. McNamara, Geometric Systems Modelling
 3. C. R. Zimmerman, G. S. Saylor and J. A. Drake, Community Self-Organization, Alternate Community States, and the Introduction Success of a Bioremediative Soil Microorganism
 4. J. Truss and C. Cullen, Coherent Architectures for Connecting People and Managing Ideas
 5. I. Guerrini, A. J. Spandatto, and J. C. Dinez da Gama, A Course in Chaos, Fractals, and Complexity – A Brazilian Experience

WEDNESDAY, JULY 19, 2000

7:15 am - 8:30 am **Breakfast Roundtable** (*Pittman Hall, Room I-200*)

8:00 - 8:30 **Registration/Continental Breakfast/Books Display** (*Room A-250 and nearby*)

WORLD CONGRESS PLENARY SESSION **DAILY THEME: HUMAN SYSTEMS IN THE 21ST CENTURY** (*Room L-72*)

8:30 - 9:00 Keynote Speech: Russell L. Ackoff, University of Pennsylvania (Wharton School), Emeritus, and Founding President, Interact, “On Misdirected Systems” (Read by Mike Jackson)

9:00 - 9:30 Keynote Speech: Leonard J. Duhl, M.D., Professor of Public Health and Urban Planning, University of California at Berkeley, “Planning for the Common Good – The Healthy Cities Initiative”

9:30 - 10:00 Co-Host Plenary Speech: Centre for Systems Studies (University of Hull) – Gerald Midgley, Director, “Systems Thinking for the 21st Century”

10:00 - 10:30 **Break** (Coffee, Breakfast Items)

10:30 - 11:00 Co-Host Plenary Speech: Centre for Applied Development Studies (CADS) – John Friend, Research Professor, University of Lincolnshire and Humberside, “Participation in Developmental Decision-Making: Systems Heresy or Systems Practice?”

11:00 - 11:30 Co-Host Plenary Speech: Korean Society for Systems Research – Yong Pil Rhee, Department of National Ethics Study, Seoul National University

11:30 - 12:00 N Co-Host Plenary Speech: Portland State University Systems Science Ph.D. Program – Martin Zwick, Professor and former Director, “Understanding Imperfection”

12:00 - 1:15 pm **Lunch:** (*North Hub Cafeteria*) (Lunch with Duhl)

1:15 - 1:45 Co-Host Plenary Speech: Program in Semiotics and Communication Theory, University of Toronto – Marcel Danesi, Director, “A Semiotics Perspective of Human Communication”

1:45 - 2:15 Co-Host Plenary Speech: World Organisation of Systems and Cybernetics (WOSC) – Robert Vallée, “The World Organisation of Systems and Cybernetics”

2:15 - 3:30 Special Symposium: Resources and the Environment in the New Millennium, Chair – Mihajlo Mesarovic
Presenters:

1. Willard R. Fey and Ann C.W. Lam, Georgia Institute of Technology and Ecocosm Dynamics Ltd., “The Bridge to Humanity’s Future”
2. Slobodan P. Simonovic, Professor and Director, Natural Resources Institute and Geological Engineering, The University of Manitoba, “World Water Dynamics”
3. Mihajlo D. Mesarovic, Cady Staley Professor of Systems Engineering and Mathematics and CWRU UNESCO Scientific Advisor on Global Change, “Global Issues: A Major Challenge for Systems Theory”

3:30 - 3:45 **Break** (Soft Drinks, Coffee, Snacks)

3:50 - 5:50 **Concurrent Panels**

- Special Roundtable on Systems Principles – (Part I). Sponsored by the Chicago Center for Creative Development, Co-Chairs – Hector Sabelli, Tom Mandel (*Oakham Room G*)
Discussants: I. Balsamo, H. Bhola, C. Francois, L. Kauffman, G. Klir, Y. P. Rhee, and S. Salthe
- American Society for Cybernetics (ASC) (II) – Ethics and Sustainable Social Systems, Chair – Kathleen Forsythe (*Oakham Room A*)
 1. P. Bunnell, Conserving Sustainability as an Ethical Orientation
 2. E. Dorsey, On Sustainable Development, ISO14000 and International Environmental Justice
 3. S. Umpleby, Human Population Growth – What Changes, What Stays the Same?
- General Evolution Research Group (GERG) – The Crisis in Evolution Theory (II): How Do We Build an Adequate Theory?, Chair – David Loye (*Room L-477*)
 1. J. Broadbent, Towards a Theory of Social Evolution
 2. K. Bausch, Short Cuts to the Better Theory
 3. S. Goerner, Chaos: From Theory to Practice
 4. E. Laszlo, Vision, Organization, and Funding Imperatives
- Interact, Indigenous Wisdom and its Lessons for the Systems Sciences, Chair – Martine Dodds (*Oakham Room B*)
 1. C. Groenewald, Learning from Within: A Reverse Perspective of Development
 2. E. M. Lumley, Indigenous Wisdom and its Lessons for the Systems Sciences
 3. M. M. E. Dodds, ‘Good Governance’ - Current Obstructions and Future Challenges
 4. A. Skenadore, The Oneida Development Project
- Centre for Applied Development Studies (CADS), Chair – Raul Espejo (*Room L-375*)
 1. R. Espejo and R. Zarama, Organisational Adventures in Driftland
 2. A. Carrisoza, Purposeful Action Towards Organisational Change: A Critical Systems Thinking Perspective
 3. Z. Mendiweso-Bendek and R. Espejo, Organisational Citizenship
 4. J. Tsouvalis, S. Seymour, and C. Watkins, Expert Versus Lay Knowledge: Systems Ideas, Precision Farming, and Farmers’ Knowledges
- Portland State University Systems Science Program – A Sampler of Systems Research and Education at Portland State University, Chair – Martin Zwick (*Oakham Room C*)
 1. M. Zwick, An Overview of the PSU Systems Science Ph.D. Program
 2. W. W. Wakeland, Teaching Systems Science in High School Compared to Graduate School
 3. S. Shervais, Developing Improved Inventory and Transportation Policies for Distribution Systems Using Genetic Algorithm and Neural Network Methods
 4. J. A. Fletcher and M. Zwick, Simpson's Paradox Can Emerge from the N-Player Prisoner's Dilemma: Implications for the Evolution of Altruistic Behavior
- World Organization of Systems and Cybernetics (WOSC,) Chair – Robert Vallée (*Oakham Room D*)
 1. R. Vallée, Perception, Decision and Action
 2. M. Schwaninger, An Integrative Framework for the Design of Intelligent Organizations
 3. A. Reyes, An Instance of Organizational Learning: The Case of the Colombian General Accounting Office
 4. O. Scherf, Complexity: A Conceptual Challenge
- Research Committee on Sociocybernetics (III), Chair – Richard Lee (*Oakham Room E*)
 1. B. Scott, Cybernetics and the Social Sciences
 2. K.-H. Simon, Systems Research and the Issue of Man-Environment Interactions
 3. E. Umbach, The Fundamental Tasks of Systems Science
 4. C. Van Dijkum, The Future of the Social Sciences: There is no Future Without System Theory, Cybernetics and Interdisciplinarity

- Korean Society for Systems Research (II) – Thermodynamics and Complexity of Social and Political Integration, Chair – Yong Pil Rhee (*Oakham Room F*)
 1. Y. P. Rhee, Complex Systems Approach to the Study of Political Integration in Korea
 2. S. C. Kim, Governance of Sustainable Peace in Korean Peninsula
 3. J. H. Kwon, Evolutionary Change in the Interactions Between North and South Korea: An Application of Non-equilibrium Thermodynamic Theory
 4. B. C. Rho, Evolutionary Dynamics of Functional Integration Between South and North Korea

6:00 - 8:00

Dinner: (*North Hub Cafeteria*) (Dinner with Shireman)

6:15 - 7:45

Video Interviews with Past Presidents: Excerpts from Past Presidents Videos (*Pittman Hall Cafeteria*)

8:00 - 9:30

Workshops/Discussion Panels

- **Special Workshop:** The Stealth Systems Science Curriculum – Len Troncale (*Oakham Room G*)
 - Centre for Applied Development Studies (CADS) – Workshop with John Friend, Dennis Finlayson, Nancy Sherman (*Oakham Room A*)
 - Portland State University Systems Science Program, Reconstructability Analysis, Chair – Martin Zwick (*Oakham Room B*)
 1. M. Zwick, OCCAM, a Reconstructability Analysis Software Package
 2. T. Shannon and G. G. Lendaris, A New Hybrid Critic-Training Method for Approximate Dynamic Programming
 3. S. Grygiel, Multi-level Decomposition of Probabilistic Relations
 4. M. Johnson, State-based Reconstructability Modeling for Decision Analysis
 - Program in Semiotics and Communication Theory Workshop: The Role of Semiotics in the Analysis of Complex Systems, Facilitator – Marcel Danesi (*Oakham Room E*)
 - Research Committee on Sociocybernetics (IV) Discussion/Workshop, Chair – Richard Lee (*Oakham Room C*)
 1. F. Wallner, Application as a Circular Process on Self-Reflective Science
 2. D. O. Rudin, The Formal Theory of Sociopsychology: Beyond Parsons to Mature Sociocybernetics
 3. R. Lee, Short Closing Statement
 - Special Panel on Healthy Communities: Wholeness and Health in Communities: The Toronto Experience, Chair – Trevor Hancock (*Room A-60*)
 1. Paul Bedford, Executive Director and Chief Planner, City of Toronto, “Livability and Conviviality”
 2. Councillor Jack Layton, Chair Sustainability Task Force, “Sustainability”
 3. Fran Perkins, Former Director, Healthy City Office, “Equity and Health”
 4. Wayne Roberts, Coordinator, Toronto Food Policy Council, “Food and the Economy”
 - General Evolution Research Group (GERG) Workshop – The Crisis in Evolution Theory (III), Open Meeting and General Discussion, Co-chairs – Ervin Laszlo, David Loye (*Oakham Room D*)
 - Poster Display Session, Coordinator – Allenna Leonard (*Atrium Near A-250*)
- Note: Poster presenters may be in attendance for one-on-one conversations with conference attendees; for a listing of poster presenters, see Tuesday evening Workshops/Discussions schedule

PROGRAM

44th ANNUAL MEETING, INTERNATIONAL SOCIETY FOR THE SYSTEMS SCIENCES

July 20-22, 2000

THURSDAY, JULY 20, 2000

7:15 am - 8:30 am **Breakfast Roundtable** (*Pittman Hall, Room I-200*)

8:00 - 8:30 **Registration/Continental Breakfast** (*Pittman Hall, ICC Cafeterias*)

ISSS PLENARY SESSION (*Room L-72*)

8:30 - 9:00 Keynote Speech: Howard T. Odum, Environmental Engineering Sciences, University of Florida (Gainesville) "Systems Self-Organization for the Prosperous Way Down"

9:00 - 10:30 **Concurrent Panels**

- Systems Applications to Business and Industry (SABI) SIG Symposium (I) – How to do Things Right (better, more efficient, with new methodologies, using improved people-friendly tools), Chair – Enrique Herrscher (*Oakham Room G*)
 1. D. Hawk and M. Takala, Fluid Management: Business Systems in the 21st Century
 2. A. Leonard, The Viable System Model and Audit Enquiry
 3. A. Moscardini, Mathematical Modelling: A Neglected Art
 4. L. Reavill, S. Poelsma and Jan Wilton, System Expansion: Large Multinational Companies and Their First and Second Tier Suppliers
 5. J. Rojas-Ramirez and E. Oliva-Lopez, Manufacturing Failure Management: Systemic Concepts and Simulation Tools
 6. E. Zalmenson, The Commitment Web: How to Set Up the Infrastructure for Autonomous Project Management
 7. D. Ing, J. Arteaga, and S. H. Haeckel, The Case for Adaptiveness in e-Business: Innovation Adoption, Economic Scope, and Value Capture Through the Strategy of Sense-and-Respond
 8. S. Brown, Organizational Change, Personal Development and Individual Thriving in an Increasingly Complex Business Environment
- The Ecosystem Approach SIG (Network for Ecosystem Health and Sustainability) Panel I. General Introduction – Post-Normal Science & The Ecosystem Approach: Theory and Challenges, Organisers, D. Waltner-Toews, J. Kay and N. M. Lister (*Oakham Lounge*)
 1. J. Kay, An Introduction to the Ecosystem Approach
 2. G. Francis, The Challenge of Governance
 3. A. Dale, The Challenge of Sustainable DevelopmentDiscussant: Scott Slocombe
- Systems Philosophy and Ethics SIG (I), Chair – Albert Vlug (*Oakham Room A*)
 1. E. Tucs, Evolvability in Urban Neighborhoods.
 2. J. E. Lamuth, A Holistic Model of Ethical Behavior Based Upon a Metaperspectival Hierarchy of the Traditional Groupings of Virtues, Values, and Ideals
 3. B. Lee, Envisioning Ethics of the Social Systems Design: Toward a Just Community
- Medical and Health Systems SIG (I), Chair – Gábor Horváth (*Oakham Room B*)
 1. M. P. Mobach, The Art of Modelling in SSM
 2. E. Pavka, Designing a US Health System for the New Millennium: The First Step

3. R. J. Seigfried, Effecting Cultural Evolution through the Practice of Dialogue and the Application of Wholeness in a Healthcare System
- Evolutionary Learning Community SIG (Syntony Quest) (I), Co-Chairs – Alexander and Kathia Laszlo (*Oakham Room C*)
 1. A. Laszlo, The Epistemological Foundations of Evolutionary Systems Design
 2. J. A. Broadbent, Design and Theories of Social Evolution
 3. K. C. Laszlo, Learning, Design, and Action: Creating the Conditions for Evolutionary Learning Community
 - Information Systems Design and Information Technology SIG Systems Change and Adaptability (I), Chair – R. Kampfner (*Oakham Room D*)
 1. A. Malmsjö, and E. Övelius, How to Control Change in Information Systems
 2. C. A. Estay-Niculcar, The IS Universe: A System of Systems
 3. R. R. Kampfner, Enhancing the Computational Capabilities of Organizations
 - Spirituality and Systems SIG (I), Chair – Axel Randrup (*Oakham Room E*)
 1. H. Parrish, Harmony in Simplicity and its Complexity
 2. C. M. Smith and M. Elmes, Passionate Inquiry in Science: On the Perennial Tradition and the Embrace of “The Ten Thousand Things”
 3. M. Doepp, System Checking for Psychological and Spiritual Reasons for Diseases
 - Futurism and Change SIG (I), Chair – Curt McNamara (*Oakham Room F*)
 1. I. E. Peón Escalante, 4D Dynamic Organizational Structure: Paradoxes, Metaphors, and Reality
 2. C. McNamara, Laws of Geometric Systems
 3. P. Hoverstadt, Mosaic Transformation in Organisations – The Use of the Viable System Model in Developing a New Approach to the Problems Of Implementing Large Scale Organisational Change
 4. L. R. P. Reavill, The Management of London’s Royal Opera House, Considered as a Complex Adaptive System

10:30 - 10:45 **Break** (Coffee, Breakfast Items)

10:45 - 12:15 pm **Concurrent Panels**

- Systems Applications to Business and Industry (SABI) SIG Symposium (I) (continued) – How to Do Things Right (better, more efficient, with new methodologies, using improved people-friendly tools), Chair – Enrique Herrscher (*Oakham Room G*)
- The Ecosystem Approach SIG (Network for Ecosystem Health and Sustainability) Panel 1. (Continued); Post-Normal Science and the Ecosystem Approach: Theory and Challenges, Chair – N. M. Lister (*Oakham Lounge*)
 1. D. Waltner-Toews, The Challenge of/to Health
 2. N. M. Lister, The Challenge to Planning
 3. G. R. Ramírez, The Challenge to Participation
 Discussant: Scott Slocombe
- Systems Modeling and Simulation SIG, Chair – Robert Orchard (*Oakham Room A*)
 1. E. Melse and A. M. M. Blommaert, Dynamic Business Modeling for Management Control and Accounting
 2. M. K. Solomon, On the Philosophy of Kurt Gödel
 3. M. K. Solomon, Tachyon Inertial Frames and the Nature of Space-Time
- Applied Systems and Development SIG (Centre for Applied Development Studies) (I), Chair – Dennis Finlayson (*Oakham Room B*)
 1. P. G. Cox, S. Mak, G. C. Jahn, and P. Mason, Agricultural R&D for Development in Cambodia: Where the Buck Stops (Starts)
 2. M. McKibbin and L. R. P. Reavill, Resolution of Conflict in Northern Ireland: A Systemic Analysis
 3. M. C. Ortegon-Monroy, Chaos and Complexity Theory: Its Role in Supporting a Process of Becoming a Learning Organisation

- Foundations of Information Science (FIS) (I), Chair – Søren Brier (*Oakham Room C*)
 1. S. Brier, Cybersemiotics as a Suggestion for FIS
 2. J. Bopry, Implications and Possibilities for Educational Technology of a Reconceptualization of the Term "Information"
 3. R. Cottam, W. Ranson and R. Vounckx, Attributing a Value to Information
- Processes and Human Processes SIG (Chicago Center for Creative Development), Chair – Hector Sabelli (*Oakham Room D*)
 1. H. Sabelli, A. Sugerman, M. Patel, L. Kauffman, J. Konecki, L. Carlson-Sabelli, A. Abouzeid, and J. Sween, Bios Data Analyzer, Introduction
 2. H. Sabelli, A. Sugerman, M. Patel, L. Kauffman, J. Konecki, L. Carlson-Sabelli, A. Abouzeid, and J. Sween, Process Method to Analyze Creative Processes and its Scientific and Medical Application
 3. H. Sabelli, A. Sugerman, M. Patel, and A. Abouzeid, Process Statistics: Flux, Action and Diversification
- Artificial Intelligence and Robotics, Chair – G. A. Swanson (*Oakham Room E*)
 1. F. Dai, M. Sugisaka and Z. Liu, Automatic Neural Network Design and its Applications Based on Genetic Algorithm
 2. M. Sugisaka, Cognitive and Behavioral Intelligent Artificial Life
 3. M. Sugisaka and X. Wang, Realization of Prime Abbrain
- Human Systems Inquiry SIG, Chair – Arne Collen (*Oakham Room F*)
 1. J. Stamps and J. Lipnack, A Systems Science of Networked Organizations
 2. K. Marchant, The Invisible Hand and the Slaving Principle: The Evolution of Economic Self-Organization
 3. H. Smidi and A. Collen, Five Perspectives for A Holistic Systemic Model to Study Stress and Disease Risk

12:15 - 1:30

Lunch: (*North Hub Cafeteria*) (ISSS Board Meeting, Room I-205)

1:30 - 3:30

Concurrent Panels

- Designing Educational Systems SIG (I), Chair – Patrick Jenlink (*Oakham Room A*)
 1. G. McI. Boyd, The Educational Challenge of the Third Millennium
 2. J. Foster, Systems Design – Introducing Transdisciplinarity to Engineering
 3. L. J. Leduc, Business Practice and the Value of a Liberal Arts Education: An Integrative Approach
 4. D. O. Rudin, General Systems Theory Unifies Knowledge and Professionalizes General Education: A Substantive Solution to the Educational Crisis
- Systems Psychology and Psychiatry SIG, Chair – Robert Orchard (*Oakham Room B*)
 1. R. Starkerman, The Group-Aggression Phenomenon
 2. R. Starkerman, Damn the Authority! A Cybernetic Essay for Uproar and Revolt
 3. E. C. Byrnes, Program-System Orientation in Juvenile Justice System Diversion
 4. G. Jandt, Complexity in Psychotherapy, Counseling and Teaching
- Thermodynamics and Systems Theory SIG (Institute for the Study of Complex Systems), Thermoeconomics: Beyond the Second Law, Chair – Tony Trewavas (*Oakham Room C*)
 1. P. A. Corning, Thermoeconomics: Beyond The Second Law
 2. H. T. Odum, Systems Relationship of Money and Information
 3. J. Kay, Exergy, the Second Law and Self-Organization: Some Observations

Discussants: Stanley Salthe, David Scienceman
- Evolutionary Learning Community (ELC) (Syntony Quest) SIG (II), Co-Chairs – Alexander and Kathia Laszlo (*Oakham Room D*)
 1. M. Yolles and P. Iles, Learning through Viable Knowledge Creation
 2. J. Truss, C. Cullen, and A. Leonard, The Coherent Architecture of Team Syntegrity: From Small to Mega Forms
 3. S. Keiny, Learning Communities for Educational Reform

4. J. B. Hopkins, A Report on an Investigation Into Our Teaching of Information Systems in U.K. Universities and an Experiment in Evolutionary Learning
- What is Life and Living SIG (I), Chair – John Kineman (*Oakham Room E*)
 1. P. Bunnell, Constitution, Evolution, and Coordination of Relational Domains
 2. C. Hardy, Self-Organization, Autopoiesis, and the Breakdown of Causality in Complex Cognitive Systems
 3. K. Palmer, Concerning the Nature of Life
 4. K. Gordon, The Impermanence of Being: Towards a Psychology of Uncertainty
 - Research into a General Systems Theory SIG (I), Chair – Helmut Burkhardt (*Oakham Room F*)
 1. H. Burkhardt, Universal Knowledge Tools
 2. H. Burkhardt and G. A. Swanson, Cybernetic Exergy: A Complex Concept for the Ability to do Work
 3. B. L. Dempster, Relinquishing Boundaries: Developing a More Appropriate Conceptualization of Complex Systems
 4. J. Korn, Possibility of General Systems Theory
 - The Ecosystem Approach SIG (Network for Ecosystem Health and Sustainability) Panel 2, Applications: Sustainable Development in Practice, Chair – S. Slocombe (*Oakham Room G*)
 1. P. Robinson, Municipal Planning & Climate Change
 2. L. Woo, An Ecosystem Approach to Urban Waterfront Planning
 3. N. Luka, Ökostädtebau: An Ecosystem Approach to Urban Design
 4. L. Baschak, An Ecosystem Approach to Eco-Regional Planning
 Discussant: Brad Bass
 - Processes and Human Processes SIG (Chicago Center for Creative Development), Chair – Hector Sabelli, (*Oakham Lounge*) Presentation on the BIOS Data Analyzer
 1. H. Sabelli, L. Kauffman, A. Abouzeid, A. Sugerman, and L. Carlson-Sabelli, Measures of Information in the Complex Plane of Opposites
 2. H. Sabelli, L. Carlson-Sabelli, A. Abouzeid, M. Patel, A. Sugerman, and L. Kauffman, Recurrence Measures of Creativity: Novelty, Complexity and Transformation
 3. H. Sabelli, M. Patel, A. Abouzeid, A. Sugerman and L. Kauffman, Process Entropy, a Measure of Symmetry, Variety and Organization
 4. H. Sabelli, L. Kauffman, A. Sugerman and A. Abouzeid, Point, Periodic, Chaotic, Biotic and Telic Attractors of Creative Development

3:30 - 3:45

Break (Soft Drinks, Coffee, Snacks)

3:50 - 5:50

Concurrent Panels

- Special Roundtable on Systems Principles – Part II. Sponsored by the Chicago Center for Creative Development, Co-chairs – Hector Sabelli and Tom Mandel (*Oakham Lounge*)
Discussants: I. Balsamo, H. Bholá, C. Francois, L. Kauffman, G. Klir, Y. P. Rhee, and S. Salthe.
- Systems Modeling and Simulation SIG, Chair – Robert Orchard (*Oakham Room A*)
 1. M. R. Tausner and N. J. Bashias, A Systemic Representation of Negotiated Cooperation to Solve a Scheduling Problem
 2. G. Shu, Meta-Synthetic Reconstruction and its Applications in Macro-economics and Other Studies
 3. N. J. Bashias and M. R. Tausner, Systemic Measures of Ambiguity for Control of Automated Reasoning
 4. E. Khosravi and B. Jones, Parallelization and Implementation of Approximate Root Isolation for Nonlinear General System
- Spirituality and Systems SIG (II), Chair – Axel Randrup (*Oakham Room B*)
 1. Y. Neumann, Artifact-Mediated-Consciousness
 2. A. Pattakos, Awakening the Public Soul Through the Spirit of Government Service
 3. H. S. Bholá, Civilizing Globalization, Celebrating the New Millenium: Not Without Systems, Not Without the Spirit

4. E. White, Organizations, Ethics, Spirit: A Discussion
- Information Systems Design and Information Technology SIG (II) Human Behavior and Cognition, Chair – R. Kampfner (*Oakham Room C*)
 1. J. B. Hopkins, "Human Problems": The Continuing Obstacle for Success in Information Systems Design?
 2. D. Ing, and I. Simmonds, Making Accountability Visible Using Information Technology
 3. G. J. Bakehouse, Human Error in the Context of Information Systems: Is It Possible to Establish a Model That Will Identify Human Characteristics Which Determine the Occurrence of Phenotypes of Erroneous Actions?
 4. A. Rosicky, Information and Human Co-Evolution: Understanding Information Within Social Systems
 - Environmental Systems Exploratory Panel (American Society for Cybernetics), Chair – Eli Dorsey (*Oakham Room D*)
 1. K. Forsythe, We Have Only One Home: Environmental Justice and the Future of Hope
 2. F. B. Wood, Sr., Climate Change and Cycles as a Focal Area for Analyzing Social Change
 - Living Systems Analysis SIG (I), Chair – Lane Tracy (*Oakham Room E*)
 1. P. Ahari, From Idea Generation to Finished Products: A Living Systems Theory Based Approach
 2. J. Arteaga, Social Systems as the Medium for Human Cognition
 3. L. Tracy, Adding Chaos to Living Systems Theory
 4. F. S. Cowan, J. K. Allen and F. Mistree, Exploring Perspectives with Living Systems Theory in the Design of Complex Engineering Systems
 - Medical and Health Systems SIG (II), Chair – Gábor Horváth (*Oakham Room F*)
 1. C. Gregory, Life is a Chronic Disease
 2. N. Steinhart, The Emergence of Cognition and Creativity from the Interaction of Biological Extension and Cultural Mediation
 3. F. Wood, Jr., Health Information on the Internet: Evolution or Revolution?
 4. R. W. J. Neufeld and L. R. Levy, Stress Negotiation and Coping Proclivity: The Implementation of Non-Linear Dynamical Systems Theory and its Associated Numerical Diagnostics to Quantify and Expound a Prototypical, Multi-Dimensional, Chaotic System
 - Designing Educational Systems SIG (II), Chair – Patrick Jenlink (*Oakham Room G*)
 1. R. H. Horn, Post-Formal Design Conversation: Designing Just and Caring Educational Systems
 2. P. Jenlink, Activity Theory and the Design of Educational Systems: Examining the Mediational Importance of Conversation
 3. K. E. Norum, Appreciative Design
 4. D. Hershey, Six Universal Systems Parameters for Diagnosing an Organisational Bureaucracy
 - The Ecosystem Approach SIG (Network for Ecosystem Health and Sustainability), Panel 2 (Continued), Chair – Scott Slocombe (*Room L-489*)
 1. M. Bunch, An Ecosystem Approach to Watershed Management in Madra
 2. C. Sunde, Experiences from New Zealand
 3. D. F. Charron, Livestock, Streams and Farm Economics in the Great Lakes Basin: Applying an Agroecosystem Framework

Discussant: Brad Bass

6:00 - 8:00

Dinner: (*North Hub Cafeteria*)

8:00 - 9:30

Workshops/Discussions, ISSS Meetings

- Special Workshop: Geometric Systems Modeling, Organizer – Curt McNamara (*Oakham Room A*)
- Special Workshop: Understanding Complexity through Systems Modelling, Organizer – Robert Orchard (*Oakham Room B*)
 1. M. Solomon (Mathematics and Computer Science)
 2. E. Byrnes (Systems Psychology)
 3. R. A. Orchard (Mathematics and System Theory)

4. G. Jandt (System Psychology)
 5. N. Bashias (Computer Science)
 6. G. Klir (Systems Theory)
 7. L. Troncale (Natural Sciences)
- Poster Presentations, Coordinator – Allenna Leonard (*Oakham Room C*)
 1. J.-C. de Maneville, Does a Company Have a Frontier? An Inner and an Outer?
 2. C. McNamara, Geometric Systems Modelling
 3. C. R. Zimmerman, G. S. Saylor and J. A. Drake, Community Self-Organization, Alternate Community States, and the Introduction Success of a Bioremediative Soil Microorganism
 4. J. Truss and C. Cullen, Coherent Architectures for Connecting People and Managing Ideas
 5. I. Guerrini, A. J. Spandatto, and J. C. Dinez da Gama, A Course in Chaos, Fractals, and Complexity – A Brazilian Experience
 - Exploratory Session: Persistence of Image: Languages and Cultures as Systems Phenomena, Organizer – Jamie Rose, Ceptual Institute (*Oakham Room D*)
 - Processes and Human Processes SIG (Chicago Center for Creative Development), Chair – Hector Sabelli (*Oakham Room E*)
BIOS Data Analyzer Workshop
 - Systems Applications to Business and Industry (SABI) SIG Symposium – Discussion Group (*Oakham Room F*)

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| FRIDAY, JULY 21, 2000 |
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7:15 am - 8:30 am **Breakfast Roundtable** (*Pittman Hall, Room I-200*)

8:00 - 8:30 **Registration/Continental Breakfast** (*Pittman Hall, ICC Cafeterias*)

ISSS PLENARY SESSION (*Room L-72*)

8:30 - 9:00 Keynote Speech: George J. Klir, Director, Center for Intelligent Systems, State University of New York (Binghamton), “The Role of Uncertainty and Soft Computing in Intelligent Systems”

9:00 - 10:30 **Concurrent Panels**

- Systems Applications to Business and Industry (SABI) SIG Symposium (II) – How to do the Right Things (more conscious and more ethical corporations, within socio-economic systems that assure dignity of people and groups), Chair – Enrique Herrscher (*Oakham Lounge*)
 1. J. Rose, Eco-gnomics. Supply and Demand in the Real Gaian World
 2. E. White, Economics, Ethics, and Social Organization: Complexity as Insight – An Evolutionary, 2nd Order Cybernetic View
 3. S. Kajzer, S. Mulej, N.V. Potocan and J. Knez-Riedl, Ethics of Interdependence and the Transition in CEEC
 4. E. Herrscher, Social Organizations in the 23rd Century: The Challenge of Complexity Management
 5. L. M. Solomons, R.D. Wilkes, and A. Moscardini, Does Y2K and GST make Australia Ready for Addressing Complexity?
- Systems Applications (I), Chair – Jennifer Wilby (*Oakham Room A*)
 1. K. Kijima, Emergence of Hierarchy from Networks in Innovative Society: A Mathematical Model and its Implications
 2. N. Kumar, Forecasting of Internet Market and its Diffusion Patterns
 3. D. Collins, IPOs and the Vapor Pressure Curve
- Applied Systems and Development SIG (II) (Centre for Applied Development Systems), Chair – Dennis E. Finlayson (*Oakham Room B*)

1. T. N. Andrew and D. Petkov, Towards a Systems Thinking Approach to the Planning and Design of Rural Telecommunication Infrastructure
 2. C. B. Fares, F. M. Ferrari, and D. P. Martinelli, An Application of Soft Systems Methodology to a Brazilian Organization's Reality
 3. D. E. Finlayson, "Internal Legitimacy", Community Involvement, Action Research and Development Evaluation
- Living Systems Analysis SIG (II), Chair – Lane Tracy (*Oakham Room C*)
 1. G. A. Chauvet, A Way to Analyze Biological Systems: The Concept of Functional Interaction
 2. V. Degtiar, The Brain as Self-Organising Autopoietic-Allopoietic System
 3. B. L. Dempster, Sympoietic and Autopoietic Systems: A New Distinction for Self-Organizing Systems
 - Critical Systems Thinking SIG, Chair – Amanda Gregory (*Oakham Room D*)
 1. I. Georgiou and I. Introna, Revisiting Dogmatism and Bounded Rationality: The Attribution of Ontological Status to Critique
 2. A. Gregory, Community Operational Research: A Contradiction in Terms?
 3. C. Montejo-Morales, Interactive Evaluation Management Process as a Complementary Evaluation Methodology to Analyse Organisations
 - Foundations of Information Science (II), Chair – Søren Brier (*Oakham Room E*)
 1. K. Bausch, The Evolution of Embodied Information: A Mosaic
 2. R. R. Kampfner, Information as a Manifestation of the Dynamics of Systems
 3. I. B. Balsamo, The Mechanistic-Logical Science vs. the Phenomenological-Semiotic Cognition: A False Dilemma
 - Medical and Health Systems (III), Chair – Gábor Horváth (*Oakham Room F*)
 1. M. Doepp, CMD: A Computerized Internet System for Follow Up Testing the Health of a Population
 2. K. Erickson, Systems Approach to Clinical Neurology
 3. G. Horváth, G. János and J. N. Gaizler Nyéky, Teleonic Study of Accidents in Anesthesia. Part I: Theoretical Background

10:30 - 10:45 **Break** (Coffee, Breakfast Items)

10:45 - 12:15 pm **Concurrent Panels**

- Systems Applications to Business and Industry (SABI) SIG Symposium (II) (continued) – How to do Right Things (more conscious and more ethical corporations, within socio-economic systems that assure dignity of people and groups) (*Oakham Lounge*)
- Global Systems Modelling Workshop, Organizer – John D. McRuer (*Oakham Room A*)
- Special Workshop: Evolutionary Systems Design (Sponsored by the Designing Educational Systems SIG), Organizer – John Broadbent (*Oakham Room B*)
- Systems Philosophy and Ethics SIG (II), Chair – Albert Vlug (*Oakham Room C*)
 1. A.E. Vlug, Machine Alerts Man: A Y2K Lesson for Systems Philosophy
 2. L. J. Filion, Vision, Autopoiesis, and Relationships.
 3. M. A. Niksirat, System Theory as an Independent Theory.
- Critical Systems Thinking SIG (II), Chair – Amanda Gregory (*Oakham Room D*)
 1. M. Mulej, S. Kajzer, and V. Potocan, The Law of Requisite Holism as a New Systemic Tool
 2. D. P. Martinelli, Towards a Systems View on Negotiation
 3. N. Valero-Silva, A Critical History of the Origins of CST
- Information Systems Design and Information Technology SIG, Information Technology and Applications (II), Chair – Robert Kampner (*Oakham Room E*)
 1. U. Baer, Application of Kalman Filtering to Reduce Complexity in Corporate Controlling.
 2. A. A. Shostko, Software Design From the Complex System Perspective

3. V. S. Lerner, Informational Macrodynamics: Information Functional Mechanism of Cyclic Functioning

- Living Systems Analysis SIG (III), Chair – Lane Tracy (*Oakham Room F*)
 1. G. A. Swanson, Management Observation and Communication Theory
 2. L. Tracy, Choosing Negotiation Strategy According to Purpose: A Living Systems Analysis
 3. A. Backlund, How to Apply Living Systems Theory to the Analysis of Organisations

12:15 - 1:30

Lunch (ISSS Trustees Meeting, *Rm I-205*)

1:30 - 3:30

Concurrent Panels

- Special Roundtable: Challenges Facing General Systems Theory in Practice (A panel related to a special issue of the new *Journal of Applied Systems Studies*), Chair – Yi Lin (a.k.a, Jeffrey Forrest), International Institute for General Systems Studies (*Oakham Lounge*)
 1. V. Lerner, Informational Macrodynamics: New Approach to Information Science
 2. S. C. OuYang and Z. Wang, Review on Blown-Up Theory of the Evolutionary Science and Basic Problems of the First Push System
 3. Y. Lin, Some Challenges Facing General Systems in Practice
- Duality Theory SIG, Chair – Vitaly Dubrovsky (*Oakham Room A*)
 1. V. J. Dubrovsky, The Genesis of "System" from Opposition, or Duality
 2. A. Aydin, 'Challenge' as an Engine for Human Growth
 3. L. H. Kauffman, Sign and Space: A Pivot
 4. K. Palmer – Intertwining of Duality and Non-duality
- Foundations of Information Science (III), Chair – Søren Brier (*Oakham Room B*)
 1. C. Lehner, A Semiotic Theory of Information for the Enhancement of Higher Education Technology
 2. L. H. Kauffman, Quantum Computing and Quantum Information
 3. K. Bausch, From Embodiment to Bits
- Evolutionary Learning Community SIG (Syntony Quest) (III), Co-Chairs – Alexander and Kathia Laszlo (*Oakham Room C*)
 4. G. Baeker, A. Dale and N. M. Lister, Transdisciplinary Collaboration for Sustainability: New Frameworks for Learning and Governance
 2. S. Stalinski, Toward Authentic Community
 3. B.F. Natrass and M. A. Natrass, The Evolutionary Corporation
- Designing Educational Systems (III), Chair – Patrick Jenlink (*Oakham Room D*)
 1. P. B. Gill, Narrative Inquiry: Designing the Processes, Pathways and Patterns of Change
 2. P. Jenlink and C. M. Reigeluth, A Guidance System for Designing New K-12 Educational Systems
 3. S. Keiny, Ecological Thinking: A New Approach to Educational Change
 4. M. Takala, D. Hawk and Y. Rammos, On the Opening of Society: Towards A More Open and Flexible Educational System
- Research into a General Systems Theory SIG (II), Chair – Helmut Burkhardt (*Oakham Room E*)
 1. R. Vallée, Intrinsic Time of a Dynamical System
 2. L. Levy, The 2 Laws of Simplicity Applied to the System Theory
 3. J. H. Robbins, A Case for the Minimum: Least Effort as Meta Umbrella
 4. K. Johnson and J. Rose, Consistent Spatio-Temporal Reasoning in a Transfinite Cantorian Universe
- Systems Modelling and Simulation SIG, Chair – Robert Orchard (*Oakham Room F*)
 1. C. Slawski, Graphic Meta-Models: Alternatives for a Better GST – A Multi-Disciplinary Compilation
 2. V. Potocan, System of the Standard Decision-Making Processes in an Enterprise
 3. H. K. Loeckenhoff, Societal Modelling for Simulation: The Case of RSA

4. A. Cuzán, Fiscal Policy, Economic Conditions, and Terms in Office: Simulating Presidential Election Outcomes
- Special Roundtable: The Ecological Nature of Economics: A Conversation with Author Jane Jacobs (Sponsored by the Ryerson School of Urban and Regional Planning), Chair – Sally Goerner, Integral Science Institute (*Room EH321A*)
Discussants: J. Kay, R. Anderson, S. Goerner
- 3:30 - 3:45 **Break** (Soft Drinks, Coffee, Snacks)
- 3:50 - 5:50 **Special Plenary Forum:** The Lessons of Y2K, Chair – Stuart Umpleby (*Room L-72*)
Presenters:
1. Stuart Umpleby, Research Program in Social and Organizational Learning, George Washington University, “Why the Century Date Change Went so Smoothly: A Report on a Conference”
 2. Mark Haselkorn, Chair, Department of Technical Communication, University of Washington, Coordinator National Research Council Global Interdependencies Project, “Lessons from Y2K for Strategic Management of Information and Communication Technology”
 3. Olivia Bosch, Senior Fellow, Center for Global Security (Lawrence Livermore Laboratory) and International Institute for Strategic Studies, “The Y2K Issue and Implications for Future International Cooperation on Infrastructure Security”
 4. Magdalena Kalaidjieva, Associate Professor, Institute of Control and Systems Research, Bulgarian Academy of Sciences, “Peculiarities of Systems Thinking and Y2K Experiences in Bulgaria”
 5. Arne Collen, Saybrook Graduate School and Research Center, San Francisco, “Y2K Survey of Graduate Students of Distance Education Community”
 6. K. Mueller, Institute for Advanced Study, “Y2K and the Science System: Two ‘Double Binds’ and a ‘Double Blindness’”
 7. Arne Collen and Stuart Umpleby, “Content Analysis of E-mail Responses to Questions About Y2K”
- 6:15 - 7:45 **Conference Banquet** (*North Hub Cafeteria*)
Presidential Address: Peter A. Corning, “The Systems Sciences in the Year 3000”
- 8:00 - 10:00 **Special Public Symposium:** “Can There be a Reconciliation Between Science and Religion?” (*Ryerson Theatre*)
Discussants: Joel Primack (Physics) University of California, Santa Cruz, John Haight (Theology) Georgetown University, Kenneth Miller (Biology) Brown University, Michael Ruse (Philosophy of Science) University of Guelph

SATURDAY, JULY 22, 2000

- 7:15 am - 8:30 am **Continental Breakfast** (*Pittman Hall Cafeteria*)
- 8:30 - 11:30 **Special Workshop:** The Natural Sciences and Doing Systems Research, Organizer: Len Troncale (*Room L-165*)
- 8:30 - 9:30 **ISSS Council Meeting** (*Room L-372*)
- 9:30 - 11:30 **Concurrent Panels**
- Systems Philosophy and Ethics SIG (II), Chair – Albert Vlug (*Room L-370*)
 1. A. E. Vlug, Exploring the Field of Systems Ethics
 2. B. Hanson, Systems Theory and the Spirit of Feminism: Grounds for a Connection
 3. J. S. Sinn, Using Systems Theory to Promote Better Values: An Examination of Three Critical Choices
 4. J. J. Blanc, Bioethism, A Universal Paradigm as Substratum to a Collective and Local Consciousness that Would Maintain the Sustainability and Adaptability of Local Sociosystems
 - What is Life and Living SIG (II), Chair – John Kineman (*Room L-375*)
 1. G. A. Chauvet, What is life/living? A possible answer using a specific theoretical framework
 2. J. J. Kineman and J. R. Kineman, Life and Space-Time Cosmology

3. R. Cottam, W. Ranson, and R. Vounckx, Emergence Inversion: The Genesis of Life
 4. J. R. Maier, Systems Intelligence: Theory and Application
- Information Systems Design and Information Technology SIG, IT and Applications/Systems, Change and Adaptability (Part II), Chair – Robert Kampfner (*Room L-477*)
 1. W. S. Dockens, The Asimov Scenario: Predicting Outcomes of the Struggle for Cyberspace
 2. D. P. Bowling and R. Espejo, Exploring Computer Supported Co-operative Work in a Retail Bank
 3. J. Korn, Construction and Delivery of Information
 4. A. Lopes Pereira, E. Alexei, and M. Cruz, The Systemic Approach for Information Flows for Maritime Cargoes, Transport Engineering Program
 - Evolution and Complexity SIG (Epic of Evolution Society) (II), Chair – Larry Edwards (*Room L-363*)
 1. A. Smith, What Story Do We Tell?
 2. N. M. Lister and J. J. Kay, Post-Normal Science in Action: A Methodology for Adaptive Ecosystem-Based Management
 3. E. Berniker, Entropy and Evolution: A Thought Experiment
 4. P. Ji Woon and J. Soon Mi, A Study of the Cooperative Coevolution between Capitalist System and Ecosystem
 - Systems Applications (II), Chair – Dennis Finlayson (*Room L-355*)
 1. C. A. Aktipis, An Information Processing and Evolutionary Approach to Consciousness
 2. A. Lopes Pereira, M. Cruz, and I. Queiroz, Priorities Evaluation in Container Terminals Using Hierarchical Analysis Process and Fuzzy Numbers
 3. D. Vaguelsky, Contribution to the Autoregulation Problem: Affirmative Action and Laissez-faire
 4. I. B. Balsamo, Applying Causal Law for Understanding Non-Locality
 - Research into General Systems Theory SIG (III), Chair – Helmut Burkhardt (*Room L-372*)
 1. C. Slawski, Promoting Synergy – Breakthroughs and Serendipitous Connections: Among Structures, Levels, Novel Ideas, Persons and Processes, Focusing on Influential, Atypical, Non-Causal Sequences of Events
 2. K. Palmer, Special Systems and the Emergent Meta-systems: A New Extension of General Systems Theory
 3. D. O. Rudin, Axiomatic Supertheory: The General Theory of Systems Generates the World System and Unifies Science
 4. J. Rose, General Systems: The Successor to Copernicus
 - Designing Educational Systems SIG (IV), Chair – Patrick Jenlink (*Room L-165a*)
 1. J. Foster, About Teaching Systems Thinking
 2. E. Herrscher, The Focus on Concrete Systems
 3. J. B. Hopkins, Can Information Systems Education Make the Transition from a Primarily Technical Focus to One Which Acknowledges Fully the Human Perspective?

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| 11:30 | - 12:30 pm | ISSS Membership Meeting (<i>Room L-372</i>) Incoming President's Address: Harold Nelson, "Continuing the Traditions of ISSS – The Reintegration of Sophia" |
| 12:30 | - 2:00 | Lunch (No Cafeteria Service) |
| 2:00 | - 4:00 | Self-Organizing Open Forum – Plus Discussion of Science and Religion , Facilitator – Allenna Leonard (<i>Room L-372</i>) |

ISSS MEETINGS SCHEDULE

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| ISSS Board | Thursday Lunch (<i>Room I-205</i>) |
| Trustees | Friday Lunch (<i>Room I-205</i>) |
| Council | Saturday, 8:30 am (<i>Room L-372</i>) |
| Membership | Saturday, 11:30-12:30 (<i>Room L-372</i>) |