

International Conference on Development and Learning 2006
Bloomington, Indiana
May 31 – June 3, 2006

PROGRAM

Welcome

We welcome you to the International Conference on Development and Learning 2006 in Bloomington, Indiana!

This is the fifth conference in this series, following highly successful events in 2000 (at Michigan State University in Lansing, MI), 2002 (at MIT in Boston, MA), 2004 (at UCSD/Salk Institute in La Jolla, CA) and 2005 (Osaka, Japan). Each of these previous conferences has made a unique contribution to the emerging fields of development and learning, and has united researchers from a wide spectrum of fields, ranging from developmental psychology to neural networks and robotics. We hope that this year's meeting will continue this trend and that there will be many fruitful exchanges between participating researchers in this highly interdisciplinary field.

This conference would not have been possible without your paper submissions (in record number this year) and participation. Major sponsorship for the conference was provided by the Office of the Vice President for Research at Indiana University, the IU Chancellor's Office, the IU College of Arts and Sciences, the IU International Programs Office, and a Training Grant funded by NIH. IEEE provides technical co-sponsorship of the meeting.

This program booklet provides information about the conference venues, dates and times of scientific sessions, and our social events. If you have any questions during the conference please feel free to contact a member of the program committee or a local volunteer.

We hope that you will have a stimulating and exciting time at the conference. Have fun!

Linda Smith (chair)
Olaf Sporns
Chen Yu
Mike Gasser
Cynthia Breazeal
Gedeon Deak
John Weng

General Program Notes:

All sessions on May 31, June 1, and June 2 are held in **Woodburn 100, Woodburn Hall**. Woodburn Hall is located at 1100 E 7th Street, 1 block east of the Indiana Memorial Union.

Sessions on June 3 (Saturday) will be held in the **Dogwood Room, Indiana Memorial Union**.

The barbecue party on June 1 will take place at the **Neal Marshal Center**, 275 Jordan Ave., 2 blocks east of the Indiana Memorial Union.

On June 3, 7:30-9:00, there will be a joint ICDL Farewell and ALife Opening Reception at the **IU Art Museum**.

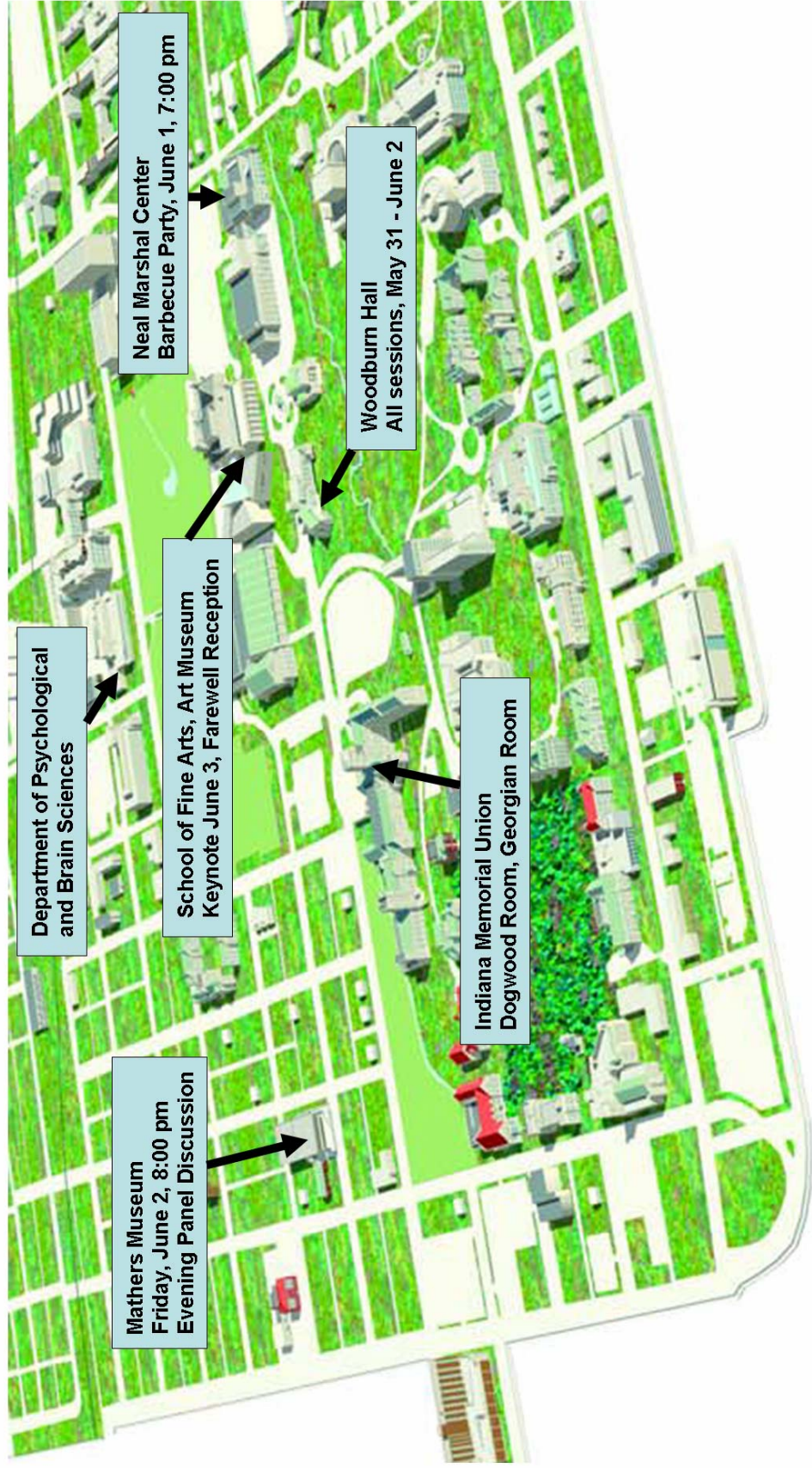
Registration will be open during the entire conference. The registration desk will be staffed all day on Wednesday, May 31, and from 8:00 am – 9:00 am on June 1, 2 and 3. On-site registration will be available on May 31 (all-day) and during lunch breaks on June 1, 2 and 3. Registration packets for pre-registered participants can be picked up at the registration desks at any time during the conference.

Poster Sessions are scheduled for Thursday, June 1, and Friday, June 2. These sessions will be held in the **Georgian Room, Indiana Memorial Union**. Please check in the back of the program for the poster titles that will be presented on these two days. Each poster can only be presented on the assigned date. Posters and poster boards are not numbered, please select any available poster board for your poster presentation. Poster boards are 4×8 foot (approx. 1.2×2.4 meters). Tacks will be available. Poster boards will be ready for installing posters beginning at 8:30 am and posters should be removed by 5:00 pm on the same day. Poster presenters should be present at their posters during the “lunch break and poster session” time periods. Food and drink will be available at the posters.

Poster listings are at the back of this program.

All refreshment breaks, welcome reception, barbecue, dessert buffet, poster lunches, and admission to ALife Opening Reception are included and covered by ICDL registration.

All workshops and special sessions of ICDL and ALife on Saturday, June 3, can be attended by all registered participants of either conference. ICDL participants should please wear their badges for all joint ALife/ICDL events.



Mathers Museum
Friday, June 2, 8:00 pm
Evening Panel Discussion

**Department of Psychological
and Brain Sciences**

School of Fine Arts, Art Museum
Keynote June 3, Farewell Reception

Neal Marshal Center
Barbecue Party, June 1, 7:00 pm

Woodburn Hall
All sessions, May 31 - June 2

Indiana Memorial Union
Dogwood Room, Georgian Room

Wednesday, May 31, 2006 -- AM

7:15 am -5:00 pm	Registration Conference Lounge, IMU
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8:30 am	Welcome and Opening of the Conference Linda Smith (Indiana University, Program Chair)
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8:35 am – 10:30 am	Special Session I The Dynamic Field Approach to Embodied Cognition: Integrating Insights from Babies, Brains and Bots Organizers: John Spencer (University of Iowa), Gregor Schöner (University of Bochum)
8:35 am – 9:05 am	“Dynamic Field Theory: Conceptual Foundations” Gregor Schöner
9:05 am – 9:40 am	“Grounding Cognition in the Dynamics of the Brain, Body, and Development” John Spencer
9:40 am – 10:05 am	“A Robotic Implementation of the Dynamic Field Theory of Infant Perseveration” Evelina Dineva
10:05 am – 10:30 am	“Toward an Embodied Theory of Spatial Language: The View from Above” John Lipinski, Larissa Samuelson
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10:30 am – 10:50 am	<i>Coffee Break</i>
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10:50 am – 12:30 pm	Talks Session I
10:50 am – 11:15 am	“Preferred Views in Children’s Active Exploration of Objects” Alfredo Pereira, Karin James, Susan Jones, Linda Smith
11:15 am – 11:40 am	“Flexibility and Stability in Spatial Categorization” Alycia M. Hund
11:40 am – 12:05 pm	“Dopamine and the Development of Executive Dysfunction in Autism” Trenton Kriete, David Noelle
12:05 pm – 12:30 pm	“Nonlinear Change Models in Heterogeneous Populations When Class Membership is Unknown: The Latent Classification Differential Change Model” Ken Kelley
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12:30 pm – 2:00 pm	<i>Lunch Break</i>
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Wednesday, May 31, 2006 -- PM

2:00 pm – 3:40 pm	Talks Session II
2:00 pm – 2:25 pm	“Infants Learn to Imitate by Being Imitated” Susan Jones
2:25 pm – 2:50 pm	“Children and Adults Rely on Body Parts for Early-Acquired Verbs” Josita Maouene, Shohei Hidaka, Linda Smith
2:50 pm – 3:15 pm	“Thinking About Thinking in Computers, Robots, and People” Daniel Levin, Megan Saylor, Alexander Varakin, Stephen Gordon, Kazuhiko Kawamura, Mitchell Wilkes
3:15 pm – 3:40 pm	“Perceptual Theory of Mind: An Intermediary between Visual Salience and Noun/Verb Acquisition” Amitabha Mukerjee, Mausoom Sarkar
3:40 pm – 4:00 pm	<i>Coffee Break</i>
4:00 pm – 5:15 pm	Talks Session III
4:00 pm – 4:25 pm	“Perseveration as a Developmental Achievement: Lessons from the A-not-B Task” Melissa Clearfield, Linda Smith and Esther Thelen
4:25 pm – 4:50 pm	“The Real-Time and Developmental Dynamics of Position Discrimination” Vanessa Simmering, John Spencer, Gregor Schöner
4:50 pm – 5:15 pm	“Fast Learning to Recognize Objects: Dynamic Fields in Label-Feature Spaces” Christian Faubel, Gregor Schöner
5:15 pm – 5:30 pm	<i>Break</i>
5:30 pm – 6:30 pm	Keynote I “Rationalists do it by the Rules – Empiricists do it to the Rules” Shimon Edelman (Cornell University)
6:30 pm – 8:00 pm	Welcome Reception University Club President’s Room, 1 st floor, IMU <i>Wine and Cheese</i>
8:00 pm	End of Day 1

Thursday, June 1, 2006 -- AM

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- 8:00 am – 5:00 pm Registration (see program notes)
Conference Lounge, IMU
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- 8:00 am Begin Installation of Posters for Poster Session I
Georgian Room, IMU
(please remove posters by 5:00 pm)
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- 8:30 am – 5:00 pm Poster Session I
Dynamics of Development I
Georgian Room, IMU
Posters for this session are listed at the back of this program.
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- 8:30 am – 10:15 am Special Session II
The Role of Distributed Intelligence in Building a Social Brain
Organizer: Michael Goldstein (Cornell University)
- 8:30 am – 8:55 am “Collective Behavior in Insects: Mechanisms of Synchronization”
Emma Despland
- 8:55 am – 9:20 am “Can Biorobotics Help us Understand Behavioral Development?”
Jeff Schank
- 9:20 am – 9:45 am “Prelinguistic Vocal Development is a Product of Distributed
Intelligence”
Michael Goldstein
- 9:45 am – 10:15 am Roundtable discussion
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- 10:15 am – 10:30 am *Coffee Break*
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- 10:30 am – 11:30 am Keynote II
“Social Gateways: Pathways to Learning and Development”
Meredith West (Indiana University, Bloomington)
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- 11:30 am – 12:20 am Talks Session IV
- 11:30 am – 11:55 am “Grounded Pronoun Learning and Pronoun Reversal”
Kevin Gold, Brian Scassellati
- 11:55 am – 12:20 pm “Learning About Humans During the First 6 Minutes of Life”
Nicholas Butko, Ian Fasel, Javier Movellan
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- 12:20 pm – 2:00 pm *Lunch Break and Poster Session I*
Georgian Room, IMU
Smoothie Bar, Silver Dollar Sandwiches, and Finger Food
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Thursday, June 1, 2006 -- PM

2:00 pm – 3:00 pm	Keynote III "From Syllables to Syntax to Symbols: Statistical Learning and the Beginnings of Language Acquisition" Jenny Saffran (University of Wisconsin, Madison)
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3:00 pm – 3:50 pm	Talks Session V
3:00 pm – 3:25 pm	"Infant Dialect Discrimination" Jennifer Phan, Derek Houston
3:25 pm – 3:50 pm	"Abstraction of Function: The Experiential and Conceptual Foundations of Tool-Use in Human Children" Gedeon Deak
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3:50 pm – 4:00 pm	<i>Coffee Break</i>
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4:00 pm – 7:00 pm	Special Session III Learning, Development and Emotion in Everyday Robots Organizers: Fumihide Tanaka (Sony), Javier Movellan (UCSD)
4:00 pm – 4:25 pm	Opening "The RUBI Project: Designing Everyday Robots by Immersion" Fumihide Tanaka, Javier R. Movellan
4:25 pm - 4:50 pm	"Mechanisms of Social learning: Toward Robots that can Learn from Anyone" Cynthia Breazeal
4:50 pm - 5:15 pm	"On-line Learning for Covert and Overt Perceptual Capability for Vision-based Navigation" Zhengping Ji, Xiao Huang, Yuyang Weng
5:15 pm - 5:30 pm	Break
5:30 pm - 5:55 pm	"An Anthropologist in the Children's World: A Field Study of Children's Every-day Interaction with an Interactive Robot" Hideki Kozima
5:55 pm - 6:20 pm	"Interactive and Social Robots Integrated with Ubiquitous Sensor Systems – Practical Scenarios for the Robot Society –" Hiroshi Ishiguro
6:20 pm - 6:45 pm	"Unsupervised Learning Methods for Everyday Robots" Ian Fasel, Javier R. Movellan
6:45 pm - 7:00 pm	Round-Table discussion
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7:00 pm – 9:00 pm	<i>Barbecue Party</i> Neal Marshall Center, 275 N. Jordan Ave.. (2 blocks east of IMU at 7 th Street) <i>Ribs, Fried Chicken and Vegetarian Menu</i>
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9:00 pm	End of Day 2
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Friday, June 2, 2006 -- AM

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- 8:00 am – 5:00 pm Registration (see program notes)
Conference Lounge, IMU
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- 8:00 am Begin Installation of Posters for Poster Session II
Georgian Room, IMU
(please remove posters by 5:00 pm)
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- 8:30 am – 5:00 pm Poster Session II
Dynamics of Development II
Georgian Room, IMU
Posters for this session are listed at the back of this program.
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- 8:30 am – 10:15 am Special Session IV
Toward a Constructivist Account of Development of Perceptual Completion
Organizer: Matthew Schlesinger (Southern Illinois Univ.)
Participants: Scott Johnson (NYU), Dima Amso (Cornell Univ.), Matt Schlesinger (Southern Illinois Univ.)
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- 10:15 am – 10:30 am *Coffee Break*
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- 10:30 am – 11:45 am Talks Session VI
- 10:30 am – 10:55 am “Mapping Causal Relations in Sensorimotor Networks”
Olaf Sporns, Jeremy Karnowski, Max Lungarella
- 10:55 am – 11:20 am “Interaction Histories: From Experience to Action and Back Again”
Naeem Mirza, Chrystopher Nehaniv, Kerstin Dautenhahn, Rene te Boekhorst
- 10:20 am – 11:45 am “Emergence of Mirror Neurons in a Model of Gaze Following”
Jochen Triesch, Hector Jasso, Gedeon Deak
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- 11:45 am – 12:45 pm Keynote IV
“Are We One? On the Nature of Human Intelligence”
Alex Pentland (MIT)
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- 12:45 pm – 2:15 pm *Lunch Break and Poster Session II*
Georgian Room, IMU
Smoothie Bar, Silver Dollar Sandwiches, and Finger Food
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- 12:45 pm – 2:15 pm ICDL/AMD Technical Committee Business Meeting (by invitation only)
State Room West, IMU
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Friday, June 2, 2006 -- PM

2:15 pm – 5:00 pm	Special Session V Synergistic Intelligence: Approach to Human Intelligence through Understanding and Design of Cognitive Development Organizer: Minoru Asada (Osaka University)
2:15 pm - 2:40 pm	"Synergistic Intelligence towards Human and Humanoid Science" Minoru Asada
2:40 pm - 3:05 pm	"Physio-SI: A Dynamics Based Approach to Humanoid Science" Koh Hosoda
3:05 pm - 3:30 pm	"Perso-SI: A Cognitive Developmental Approach to Humanoid Science" Yasuo Kuniyoshi
3:30 pm - 3:55 pm	"Socio-SI: An Interactive System Approach to Humanoid Science" Hiroshi Ishiguro
3:55 pm - 4:20 pm	"SI-Mechanism: A Neurocognitive Science Approach to Human and Humanoid Science" Kenji Ogawa
4:20 pm - 5:00 pm	Panel on "How can SI Contribute to Understanding Learning and Development in Human and Humanoid?"
5:00 pm – 5:15 pm	<i>Coffee Break</i>
5:15 pm – 6:30 pm	Talks Session VII
5:15 pm – 5:40 pm	"Transparency and Socially Guided Machine Learning" Andrea Thomaz, Cynthia Breazeal
5:40 pm – 6:05 pm	"Learning Through Multimodal Interaction" Chen Yu, Hui Zhang, Linda Smith
6:05 pm – 6:30 pm	"Self-Development Framework for Reinforcement Learning Agents" Andrea Bonarini, Alessandro Lazaric, Marcello Restelli, Patrick Vitali
6:30 pm – 8:00 pm	<i>Dinner on your own (please consult conference information for dinner options in and around the IMU)</i>
8:00 pm – 10:00 pm	Evening Panel Discussion Mathers Museum, 601 E 8 th Street (2 blocks northwest of IMU) Why Development Matters Giorgio Metta, Cynthia Breazeal, Linda Smith <i>Dessert Buffet, Beverages and Bar</i>
10:00 pm	End of Day 3

Saturday, June 3, 2006 -- AM

Note: All registered participants of ICDL can visit all workshops (ICDL and ALife) on this day. Please wear your ICDL badges. Special Sessions are held in the Dogwood Room of the IMU.

8:30 am – 5:00 pm	Registration (see program notes) Conference Lounge, IMU
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8:30 am – 12:30 pm	Special Session VI Development and Incremental Learning in Perceptual Systems Organizers: John Weng (MSU), Zhengyou Zhang (Microsoft)
8:30 am – 8:55 am	“Establishing an Appropriate Learning Bias through Development” Vinod K. Valsalam, James A. Bednar, Risto Miikkulainen
8:55 am – 9:20 am	“Optimal In-Place Self-Organization for Cortical Development: Limited Cells, Sparse Coding and Cortical Topography” Juyang Weng and Matthew D. Luciw
9:20 am – 9:45 am	“Knowledge-based Learning with KBCC” Thomas R. Shultz, François Rivest, László Egri, Jean-Philippe Thivierge
9:45 am – 10:10 am	“Knowledge Transfer in Learning to Recognize Visual Objects Classes” Li Fei-Fei
10:10 am – 10:35 am	“Learned Attention” John K. Kruschke
10:35 am – 11:00 am	“What Can I Control?: The Development of Visual Categories for a Robot’s Body and the World that it Influences” Charles C. Kemp, Aaron Edsinger
11:00 am – 11:25 am	“Behavior-Based Segmentation of Demonstrated Tasks” Nathan Koenig, Maja J Mataric
11:25 am – 11:50 am	“Semantic Based Learning of Syntax in an Autonomous Robot: Preliminary Results” Matthew McClain, Stephen Levinson
11:50 am – 12:15 pm	“Learning Situation Models for Understanding Activity” James L. Crowley, Olivier Brdiczka, Patrick Reignier
12:15 pm – 12:40 pm	“Perception of Social Interest” Alex Pentland, Anmol Madan, Jon Gips

12:40 pm – 2:00 pm	<i>Lunch Break</i>
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Saturday, June 3, 2006 -- PM

- 2:00 pm – 5:30 pm **Special Session VII**
Classifying Activities in Manual Tasks
Organizer: Rod Grupen (Univ. Mass.)
- 2:00 pm Opening Remarks by Rod Grupen
- 2:10 pm – 2:35 pm “Modeling Reaching and Manipulating in 2- and 3-D Workspaces: The Posture-Based Model”
A. Rosenbaum, Ruud G.J. Meulenbroek
- 2:35 pm – 3:00 pm “Towards a Vocabulary of Primitive Task Programs for Humanoid Robots”
Evan Drumwright, Viktor Ng-Thow-Hing, Maja Mataric
- 3:00 pm – 3:25 pm “Learning Grasp Affordances through Human Demonstration”
Andrew Fagg, Charles de Granville, Joshua Southerland
- 3:25 pm – 3:45 pm Break
- 3:45 pm – 4:10 pm “Imitation Learning of Hand Manipulation”
Emanuel Todorov
- 4:10 pm – 4:35 pm “Manipulation Manifolds: Explorations into Uncovering Manifolds in Sensory-Motor Spaces”
Chad Jenkins, Alan Peters, Bobby Bodenheimer
- 4:35 pm – 5:00 pm “Robot Manipulation of Human Tools: Autonomous Detection and Control of Task Relevant Features”
Aaron Edsinger, Charles C. Kemp
- 5:00 pm – 5:30 pm “Improving Grasp Skills Using Schema Structured Learning”
Robert Platt, Roderic Grupen, Andrew Fagg
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- 5:50 pm – 7:00 pm Keynote V
- Joint ICDL/ALife Keynote**
Welcome and Opening Remarks by Luis Rocha (ALife Program Chair)
and Michael Dunn (Dean, School of Informatics, IU)
- “Mechanisms of Social Learning Applied to Interaction”**
Cynthia Breazeal (MIT)
School of Fine Arts Auditorium 015, Showalter Fountain
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- 7:30 pm – 9:00 pm **ALife Opening Reception, ICDL Farewell Reception**
IU Art Museum, Showalter Fountain
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- 9:00 pm End of Day 4
End of Conference
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Saturday, June 3, 2006

ALife X Workshops – see www.alifex.org and www.alifex.org/program/

9:00 am – 5:30 pm Full Day Workshops

Morphologies, Motion and Cognition

Organizers: Fernando Almeida e Costa, Ian Macinnes

Evolution of Complexity

Organizers: Carlos Gershenson, Tom Lennaerts

Neurodynamic Methods for Analysis and Control of Cognitive Behaviors

Organizers: Robert Kozma, Anil Seth, Jun Tani

9:00 am – 12:30 pm Half Day Workshops and Tutorial

Artificial Autonomy

Organizer: Xabier Barandiaran, Kepa Ruiz-Mirazo

Modeling Environment Construction

Organizer: Peter Todd

Computational Chemistry for Self-Organization (Tutorial)

Hideaki Suzuki

2:00 pm – 5:30 pm Half Day Workshops and Tutorial

Machine Self-Replication

Organizer: William Buckley

Molecular Information Processing in Nature

Organizer: Peter Willis

**The Complete Idiot's Tutorial to In Theorio, In Silico, and In Vivo
Computation (Tutorial)**

Christof Teuscher

For more detailed information please consult the ALife X program.

Poster Session I

Thursday, June 1, 8:30 am – 5:00 pm

“Feature Discovery in Object Individuation”

Shohei Hidaka, Jun Saiki

“The Effects of Practice on Limb Segment Dynamics in a Whole-Body Task”

S. Lee Hong, Karl M. Newell

“Neocortical Self-Structuration as a Basis for Learning”

René Doursat, Elie Bienenstock

“Development of Language: The Role of Early Negative Parenting Beliefs”

Zohreh Yaghoub Zadeh, Nancie Im-Bolter

“Adaptive Resonance Situated for Speech-Like Pattern Learning and Synthesis”

Michael Brady

“Speed of Processing, Time, and Inference in the Attentional Blink: Application to Children”

Nicholas A. Badcock, Mike Anderson, Janet Fletcher, & John Hogben

“Symbol Emergence by Combining a Reinforcement Learning Schema Model with Asymmetric Synaptic Plasticity”

T. Taniguchi, T. Sawaragi

“Developmental Construction of Intentional Agency in Communicative Eye Gaze”

Takeshi Konno, Takashi Hashimoto

“The Role of Motion in Maternal Bimodal Naming to Preverbal Infants”

Dalit J. Matatyaho, Lakshmi J. Gogate

“The Perceived Intentionality of an Audience Influences Action Demonstrations”

Jonathan S. Herberg, M. M. Saylor, and D. T. Levin, P. Ratanaswasd, D. M. Wilkes

“How Adults Acquire Children’s Representation of Numerical Magnitude”

John. E. Opfer, Jeffrey M. DeVries

“REM-II: A Model of the Developmental Co-Evolution of Episodic Memory and Semantic Knowledge”

Shane T. Mueller, Richard M. Shiffrin

“Sensory-Motor Development in Early Robot Learning”

M.H. Lee, Q. Meng

“Toddler’s Understanding of Others’ Intentions during Pretense: How it Shifts from Following the Action to Actively Sharing Make-Belief Objects”

Miki Kakinuma

“Determining Infant Fricative Discrimination across Test Sessions: Is Memory a Wrench in the Works?”

Jonathan Ting, Joseph P. Smith, Derek M. Houston

“Taking a Parallel Approach to the Development of Sociality”

Jennifer L. Miller, Andrew P. King, Meredith J. West

“Learning Transitive Argument Structure”

Nitya Sethuraman, Linda B. Smith

“Imitation Learning for Reaching in Virtual Reality Environments”

Nigel Singh, Emanuel Todorov

“The Role of Prelinguistic Vocalizations in Vocal and Social Development”

Julie Gros-Louis

The Role of Number, Similarity, and Individuation in Children’s Acquisition of the Plural”

Jennifer A. Zapf

“Beyond Association: Social Cognition in Word Learning”

Magdalena Bugajska, Nicholas Cassimatis

“Activation of Sensory-Motor Areas by Sentences”

Rutvik Desai, Jeffrey R. Binder, David A. Medler, Lisa L. Conant, Mark S. Seidenberg

“Social Interaction Contributions to Visual Spatial Performance in Preschool Children”

Yvette R Harris, Lin Ye, Jessica Prescod

“Post-it Power: Using Non-Linguistic Labels to Help Children Notice Relations”

Ji Y. Son, Linda B. Smith

“Research on Robot Learning and Development in China”

John Weng, Wengqiang Zhang, Xiangyang Xue, Min tan, Zhiqiang Cao, Shuo Wang, Daxue Liu, Xiangjing An, Henping Sun, Hangen He, Quixin Cao, Yanwen Huang, Jingliang Zhou, Leibin Yu, Jianda Han, Yuechao-Wang

Poster Session II

Friday, June 2, 8:30 am – 5:00 pm

“Assessment of Mental Models in Cognitive Disability: Use of Fuzzy Cognitive Mapping Techniques”
Michael D. McNeese, Karl Perusich

“Selective Attention in Time: An Extended Model for Stimulus Onset Asynchrony (SOA) in Stroop Effect”
Yingwei Yu, Yoonsuck Choe

“Reinforcement Learning of Hierarchical Skills on the Sony Aibo Robot”
Vishal Soni, Satinder Singh

“Stability and Perseveration of Looking during a Looking, Kicking and Reaching A-not-B Task”
Ellen Otte, Esther Thelen

“A Dynamic Predictive Coding System Based on Retina Biologic Model”
Dongyue Chen, Liming Zhang, Juyang Weng

“Robot Imitation from Active-Sensing Experiences”
Ryunosuke Yokoya, Tetsuya Ogata, Jun Tani, Kazunori Komatani, and Hiroshi G. Okuno

“Human-Level Psychometrics for Cognitive Architectures”
Alexei V. Samsonovich, Giorgio A. Ascoli, Kenneth A. De Jong

“Statistical Word Learning Based on Cross-Situational Observation”
Chen Yu, Linda B. Smith

“Spatial Abstraction and Knowledge Transfer in Reinforcement Learning Using a Multi-Layer Neural Network”
Katsunari Shibata

“Situation-Based Stimuli Response in a Humanoid Robot”
Palis Ratanaswasd, Chris Garber, Adrian Lauf

“Emotion-Based Learning of Intrinsically Motivated Autonomous Agents living in a Social World”
Maria Malfaz, Miguel Angel Salichs

“Computational Model for Sequence Learning: Generalization and Differentiation Dynamics of Learning Modules”
Ichiro Igari, Chiaki Hirata, Jun Tani

“Movement Planning, Motor Control and Transfer across Movement Categories”
Ellen Otte, Jörg Bornschein

“Using Eye Direction Cues for Gaze Following – A Developmental Model”
Hector Jasso, Jochen Triesch

“Temporal Difference Learning with Learned Attention Shifts”
William H. Alexander, Olaf Sporns

“System Integration with Working Memory Management for Robotic Behavior Learning”
Stephen Gordon, Joe Hall

“Mother-Infant Synchrony: A Dynamical Systems Approach”
Shannon Zentall, Steven M. Boker, Julia M. Braungart-Rieker

“Which Motion Features Induce the Perception of Animacy”
Viksit Gaur, Brian Scassellati

“The Effects of Deictic Pointing in Word Learning”
Hilary Kalagher, Chen Yu

Toward a Dynamic Field Theory of Infant Category Learning in Habituation Tasks”
Sammy Perone, John P. Spencer, Lisa M. Oakes, Gregor Schöner

“Toward a Vocabulary of Primitive Task Programs for Humanoid Robots”
Evan Drumwright, Victor Ng-Thow-Hing, Maja Mataric

“Making Categories in Time”
Adam Sheya

“For Category Inclusions with Set Theory Operators on Early-Acquired Nouns, Crossing Parts, Functions, -new and old-, and Recombining Them, Matter”
Mounir Maouene, Linda B. Smith, Josita Maouene

“Working Memory for Robots: Inspirations from Computational Neuroscience”
Joshua L. Phillips, David C. Noelle

“Active Lexicon Acquisition Based on Curiosity”
Masaki Ogino, Masaaki Kikuchi and Minoru Asada

“Vowel Acquisition based on Visual and Auditory Mutual Imitation in Mother-Infant Interaction”
Katsushi Miura, Minoru Asada, Koh Hosoda, Yuichiro Yoshikawa