ICCM2010

The 10th International Conference on Cognitive Modeling

August 5-8, 2010
Philadelphia, PA

Conference-at-a-Glance

Thursday

8:00	**Registration**	Bossone lobby
8:15 - dinner	**Doctoral Consortium**	LeBow 240
8:45 - 5:30	**ACT-R Workshop**	Bossone auditorium
9:00 - 12:30	**CLARION Tutorial**	Bossone 302
1:00 - 4:30	**Brahms Tutorial**	Bossone 302

Friday

8:00	**Registration**	Bossone lobby
9:00	**Welcome, Invited Talk**	Bossone auditorium
10:10	Break	Bossone lobby
10:30	**Talks:** Knowledge & Performance	Bossone auditorium
12:00	Lunch	
1:30	**Talks:** Developmental Milestones	Bossone auditorium
3:00	Break	Bossone lobby
3:30	**Symposium:** Cognitive Control	Bossone auditorium
5:00	**Poster Session**	Bossone atrium, 3rd floor
6:30	Break	
7-10	**Reception**	World Café Live, 3025 Walnut St.

Saturday

9:00	**Invited Talk**	Bossone auditorium
10:00	Break	Bossone lobby
10:30	**Talks:** Theory Comparison	Bossone auditorium
12:00	Lunch (Executive Cmte. Mtg.	LeBow 240)
1:30	**Talks:** Neural Correlates	Bossone auditorium
3:00	Break	Bossone lobby
3:30	**Talks:** Perception, Action, & Spatial	Bossone auditorium
5:00	**Poster Session**	Bossone atrium, 3rd floor
6:30	End of Day	

Sunday

9:00	**Best Poster Award, Talks:** Impl. & Scale	Bossone auditorium
10:30	Break	Bossone lobby
11:00	**Invited Talk**	Bossone auditorium
12:00	End of Conference	

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Introduction

Welcome to the 10th International Conference on Cognitive Modeling! It is a pleasure to welcome you to Philadelphia and to Drexel University. This program booklet contains a variety of details about the conference, venue, and surrounding area. If you have any questions, please ask one of the organizers or a local volunteer. Enjoy the conference!

– Dario Salvucci & Glenn Gunzelmann
ICCM 2010 Conference Chairs

Sponsors

Air Force Office of Scientific Research

Air Force Research Laboratory, Human Effectiveness Directorate

Aptima, Inc.

Cognitive Science Society

Drexel University

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Office of Naval Research

Committees

Organizing Committee

Conference Chairs:	Dario Salvucci & Glenn Gunzelmann
Tutorials & Workshops:	Frank Ritter
Doctoral Consortium:	Robert St. Amant
Local Administration:	Julie Fisher & Tuyet Sithiphavong

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Tiffany Jastrzembski
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Leendert van Maanen
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Awards

The following awards honor the best paper and poster contributions in select categories as chosen by a committee of distinguished researchers. Congratulations to our winners and honorees!

Siegel-Wolf Award for Best Applied Paper

Sponsored by Aptima, Inc.

This award, given for the best applied research paper, is named in recognition of Art Siegel and Jay Wolf, who worked on human performance models for more than 20 years at Applied Psychological Services in Wayne, PA. The winners are:

Task-Constrained Interleaving of Perceptual and Motor Processes in a Time-Critical Dual Task as Revealed Through Eye Tracking
Anthony J. Hornof & Yunfeng Zhang

The Evolution of a Goal-Directed Exploration Model: Effects of Information Scent and Go-back Utility on Successful Exploration
Leonghwee Teo & Bonnie E. John

Honorable mention goes to the following papers:

Modeling the Effects of Work Shift on Learning in a Mental Orientation and Rotation Task
Tim Halverson, Glenn Gunzelmann, L. Richard Moore Jr., & Hans Van Dongen

Exploration of Costs and Benefits of Predictive Human Performance Modeling for Design
Bonnie E. John & Tiffany S. Jastrzembski

Allen Newell Award for Best Student Paper

Sponsored by the Office of Naval Research

This award, given for the best full paper with a student as first author, is named in recognition of Allen Newell, one of the founders of the field of cognitive modeling. The winner is:

A Cognitively Bounded Rational Analysis Model of Dual-Task Performance Trade-Offs
Christian P. Janssen, Duncan P. Brumby, John Dowell, & Nick Chater

Honorable mention goes to the following papers:

A New Approach to Exploring Language Emergence as Boundedly Optimal Control in the Face of Environmental and Cognitive Constraints
Jeshua Bratman, Michael Shvartsman, Richard L. Lewis, & Satinder Singh

Rewards and Punishments in Iterated Decision Making: An Explanation for the Frequency of the Contingent Event Effect
Antonio Napoli & Danilo Fum

Neural Correlates of Temporal Credit Assignment
Matthew M. Walsh & John R. Anderson

Best Student Poster

Sponsored by the Cognitive Science Society

This award is given for the best poster presentation for a paper or abstract, submitted to the main program, with a student as first author and presenter. Committee members will visit student posters during the poster sessions and the award winner(s) will be announced on Sunday morning at the start of the 9am session.

Local Information

Location & Venue

Philadelphia is the sixth-largest city in the United States and home to a number of historic attractions including the Liberty Bell, Franklin Institute, and Independence Hall. ICCM 2010 is being held at Drexel University in the Bossone Research Center, a recent addition to Drexel's College of Engineering completed in 2005. The doctoral consortium, tutorials, and workshop are also being held in Bossone and an adjacent building (LeBow). Drexel University is located alongside the University of Pennsylvania in the heart of Philadelphia's University City section. The downtown area, Center City, lies just across the Schuylkill River to the east, and the historic district including Old City and Society Hill are a short subway ride away.

Food & Dining

There are a number of dining options in University City within a few blocks of the Bossone conference venue as well as near the hotels in the Center City / Rittenhouse Square area. Please refer to the maps at the end of this program for dining options and their locations.

Transportation

Taxi service from the airport to the conference hotels costs roughly $30-35. The Philadelphia regional rail system, SEPTA, runs trains from the airport to the downtown area for roughly $5-7 per ride (take the R1 train to 30th Street Station for the Sheraton and other University City hotels, to Suburban Station for Club Quarters and other Center City hotels).

The conference venue is within walking distance of the hotels and many dining options, and thus you will likely not need to use public transportation during the conference. The SEPTA Market-Frankford line runs between the University City area and other areas such as historic Old City. Taxis and SEPTA buses and trolleys provide other local options.

Conference Information

Registration

Registration in the Bossone lobby is open Thursday 8-9am and 12:30-1:00pm and Friday 8-9am. If you cannot register during these hours, please contact one of the organizers or a local volunteer.

Conference Reception

The conference reception will be held Friday 7-10pm at World Café Live, 3025 Walnut Street (three blocks from the Bossone conference venue). The reception will include a station dinner, open bar (beer/wine), and live music.

Executive Planning Meeting

During the Saturday lunch slot (12:00-1:30pm), there will be an executive meeting to discuss planning of the next ICCM. If you are interested in attending, please talk to one of the conference organizers. Lunch will be provided at the meeting.

Internet Access

Conference attendees can access the Drexel Dragonfly wireless internet by joining the "drexelguest" wireless network.

Presentation Instructions

Oral presentations: Presenters should plan to speak for no more than 17 minutes, which leaves an additional 5 minutes for questions and laptop switching. The session chair will introduce each speaker and help to keep track of time.

Poster presentations: The available board space for each poster is slightly less 6 feet (1.8 meters) wide and 4 feet (1.2 meters) high. Push pins for securing posters to boards will be provided. Posters should be put up at the break before the poster session or just as the poster session starts, and must be removed at the end of the poster session.

Proceedings

The conference proceedings CD with all papers and abstracts is included in your registration packet. Papers and abstracts may be cited as follows (APA-style):

Doe, J., & Doe, J. (2010). This is the title of the paper. In D. D. Salvucci & G. Gunzelmann (Eds.), *Proceedings of the 10th International Conference on Cognitive Modeling* (pp. 1-6). Philadelphia, PA: Drexel University.

Invited Speakers

Jonathan Gratch

Jonathan Gratch is an Associate Director for Virtual Humans Research at the University of Southern California's (USC) Institute for Creative Technologies, Research Associate Professor in the Department of Computer Science and co-director of USC's Computational Emotion Group. He completed his Ph.D. in Computer Science at the University of Illinois in Urban-Champaign in 1995. Dr. Gratch's research focuses on computational models of human social processes, especially emotion, and explores these models' role in shaping human-computer interactions in virtual environments. He studies the relationship between cognition and emotion, the cognitive processes underlying emotional responses, and the influence of emotion on decision making and physical behavior. He currently serves as the Editor-in-Chief of IEEE's Transactions on Affective Computing, Associate Editor for Emotion Review and the Journal of Autonomous Agents and Multiagent Systems, and serves as President of the HUMAINE Association, the international society for research on emotion and human-computer interaction.

Bonnie E. John

Bonnie E. John (B.Eng. 1977, The Cooper Union; M.S. 1978, Stanford; Ph.D. 1988, Carnegie Mellon University) is Professor of Human-Computer Interaction and founding member of Carnegie Mellon University's Human-Computer Interaction Institute. She has been modeling human behavior to guide HCI design since 1983. She created CPM-GOMS, which she used to save the NYNEX telephone company $2 million per year. Dr. John has also published models in GLEAN, Soar, EPIC-Soar, and ACT-R. She led the development of CogTool, which realized an order-of-magnitude decrease in the time an expert takes to build a predictive model, while making novice modelers as accurate as experts. Dr. John is a member of the ACM SIGCHI Academy and has received the NASA 2004 Turning Goals into Reality Administrator's Award and the NASA 2004 Group Achievement Award for Infusion of Information Technology into the 2003 Mars Exploration Rover (MER) Mission, and was the 2007 Thomas A. Wasow Visiting Scholar in Symbolic Systems at Stanford University.

Kurt VanLehn

Kurt VanLehn is a Professor in the School of Computing and Informatics at Arizona State University. He received a Ph.D. from MIT in 1983 in Computer Science, was a post-doc at BBN and Xerox PARC, joined the faculty of Carnegie Mellon University in 1985, moved to the University of Pittsburgh in 1990 and joined ASU in 2008. He founded and co-directed two large NSF research centers (Circle; the Pittsburgh Science of Learning Center). He has published over 125 peer-reviewed publications, is a fellow in the Cognitive Science Society, and is on the editorial boards of Cognition and Instruction, and the International Journal of Artificial Intelligence in Education. Dr. VanLehn's research focuses on applications of artificial intelligence to education and cognitive modeling. His recent projects include several intelligent tutoring systems (Andes, Why2-Atlas, Cordillera, and Pyrenees) as well as Cascade, a highly accurate cognitive model of students learning physics.

Thursday, August 5, 2010

CLARION Tutorial

Organizers: Nicholas Wilson & Michael Lynch

8:00 am	**Registration**	Bossone lobby
	Directions to Bossone 302: From the Bossone lobby, take the stairs or the elevators to the third-floor atrium. Room 302 is located off the hallway to the left side of the atrium.	
9:00 am	**Tutorial Session 1**	Bossone 302
10:15 am	**Break**	Bossone lobby
10:45 am	**Tutorial Session 2**	Bossone 302
12:30 pm	End of Tutorial	

Brahms Tutorial

Organizer: Maarten Sierhuis

12:30 pm	**Registration**	Bossone lobby
	Directions to Bossone 302: From the Bossone lobby, take the stairs or the elevators to the third-floor atrium. Room 302 is located off the hallway to the left side of the atrium.	
1:00 pm	**Tutorial Session 1**	Bossone 302
2:30 pm	**Break**	Bossone lobby
3:00 pm	**Tutorial Session 2**	Bossone 302
4:30 pm	End of Tutorial	

Doctoral Consortium

Organizer: Rob St. Amant
Faculty Mentors: Duncan Brumby, John Laird, & Rob St. Amant

8:00 am **Registration** Bossone lobby

Directions to LeBow 240: From the Bossone lobby, walk through the public table area and through the two sets of double doors behind this area. Enter the stairway to the right (or elevator on the left) and go up one floor. Make a right and walk down to #240 on your left.

8:15 am **Welcome** LeBow 240 (all day until group dinner)
Rob St. Amant

8:30 am **Recognizing Behaviors and the Intentional State of the Participants**
Wesley Kerr, University of Arizona

Modeling Memes, a Memetic View of Affordance Learning
Benjamin D. Nye, University of Pennsylvania

A Probabilistic Model of Phonetic Cue Restructuring
James P. Kirby, University of Chicago

10:00 am **Break**

10:30 am **Learning to Use Memory**
Nicholas A. Gorski, University of Michigan

Long-term Symbolic Memories for Long-Living Learning Agents
Nate Derbinsky, University of Michigan

Towards Descriptive and Prescriptive Double-Loop learning Agents
Ceyhun Eksin, University of Pennsylvania

12:00 pm **Lunch**

1:30 pm **Faculty Mentor Presentation**
John Laird, University of Michigan

Exploring a Novel Training Paradigm for Knowledge and Skills Acquisition
Jaehyon Paik, Pennsylvania State University

Modeling of Modality Selection in Multimodal Human-Computer Interaction
Stefan Schaffer, Berlin Institute of Technology

Contextual Memory for Goals: On the Role of Context, Attention, and Intention in Cognitive Control
Michel E. Brudzinski, Rensselaer Polytechnic Institute

3:30 pm **Break**

4:00 pm **Canonical Behavior Patterns**
Walter C. Mankowski, Drexel University

Understanding Strategic Adaptation in Multitask Settings
Christian P. Janssen, University College London

Visual Search Strategies and the Layout of the Display
Bella Z. Veksler, Rensselaer Polytechnic Institute

Faculty Mentor Presentation
Duncan Brumby, University College London

6:00 pm **Break**

7:00 pm **Group Dinner**
Slainte Pub & Grill
3000 Market Street

ACT-R Workshop

Organizer: John R. Anderson

8:00 am	**Registration**	Bossone lobby
8:45 am	**Welcome** John Anderson	Bossone auditorium
	What's New in ACT-R 6.0 Dan Bothell	
	CogTool: A Tool for Interface Design and ACT-R Research Bonnie John	
10:15 am	**Break**	Bossone lobby
10:45 am	Building Learning Models Quickly that Do a Non-Iterative Task Frank Ritter	Bossone auditorium
	Hands-on with ACT-UP, a Cognitive Toolbox for Scalable Models David Reitter	
	Using Cognitive Models to Analyze fMRI Data Jelmer Borst	
12:15 pm	**Lunch**	see map for options
1:00 pm	Space Fortress: An Overview Wayne Gray	Bossone auditorium
	Modeling Space Fortress Marc Destefano	
	Modeling Space Fortress Dan Bothell	
2:30 pm	**Break**	Bossone lobby
3:00 pm	Softening Representations for Model Reuse and Generality Christian Lebiere	Bossone auditorium
	Cognitive Supermodels Dario Salvucci	
4:30 pm	**Pause**	Bossone lobby
4:45 pm	The Future of ACT-R in the Post-John Era John Anderson	Bossone auditorium

Friday, August 6, 2010

8:00 am **Registration** Bossone lobby

9:00 am **Welcome** Bossone auditorium
Dario Salvucci & Glenn Gunzelmann

9:10 am **Invited Talk** Bossone auditorium
Why Are Step-Based Tutoring Systems Almost as Effective as Human Tutors?
Kurt VanLehn, Arizona State University

10:10 am **Break** Bossone lobby

10:30 am **Talks: Knowledge & Performance** Bossone auditorium
Session Chair: Danilo Fum

- When to Switch? Understanding How Performance Tradeoffs Shape Dual-Task Strategy
  Duncan P. Brumby, Nina del Rosario, & Christian P. Janssen
- A Cognitively Bounded Rational Analysis Model of Dual-Task Performance Trade-Offs
  Christian P. Janssen, Duncan P. Brumby, John Dowell, & Nick Chater
- A Temporally Asymmetric Hebbian Network for Sequential Working Memory
  Jared C. Sylvester, James A. Reggia, Scott A. Weems, & Michael Bunting
- Combining Procedural and Declarative Knowledge in a Graphical Architecture
  Paul S. Rosenbloom

12:00 pm **Lunch** see map for options

1:30 pm **Talks: Developmental Milestones** Bossone auditorium
Session Chair: Hedderik van Rijn

- A Cognitive Model of Theory of Mind
  Laura M. Hiatt & J. Gregory Trafton
- A Computational Model of Second-Order Social Reasoning
  Leendert van Maanen & Rineke Verbrugge
- A Computational Model of Functional Category Learning in a Cognitive Architecture
  Yongjia Wang & John E. Laird
- A New Approach to Exploring Language Emergence as Boundedly Optimal Control in the Face of Environmental and Cognitive Constraints
  Jeshua Bratman, Michael Shvartsman, Richard L. Lewis, & Satinder Singh

3:00 pm **Break** Bossone lobby

3:30 pm **Symposium: Cognitive Control** Bossone auditorium
Andrew Howes, Richard Cooper, Matthew Botvinick, Richard Lewis, & Niels Taatgen

5:00 pm **Poster Session** Bossone atrium, 3rd floor

See page 16 for listing of posters

6:30 pm **Break** free time to bring bag to hotel, relax, etc.

7-10 pm **Conference Reception** World Café Live
3025 Walnut St.*

* Note: As you arrive on 31st Street, climb the steps up to Walnut Street, enter through the main entrance, and go down to the lower floor of the venue. There is also an accessible entrance on 31st Street.

Saturday, August 7, 2010

9:00 am **Invited Talk** Bossone auditorium

Where's the Passion: Exploring the Inescapable Role of Emotion in Cognition and Social Interaction, and How to Model It

Jonathan Gratch, University of Southern California

10:00 am **Break** Bossone lobby

10:30 am **Talks: Theory Comparison** Bossone auditorium

Session Chair: Kevin Gluck

- Nice Graphs, Good R^2, but Still a Poor Fit? How to Be More Sure Your Model Explains Your Data
  Niels A. Taatgen & Hedderik van Rijn
- Modelling the Correlation Between Two Putative Inhibition Tasks: A Simulation Approach
  Richard P. Cooper & Eddy J. Davelaar
- Rewards and Punishments in Iterated Decision Making: An Explanation for the Frequency of the Contingent Event Effect
  Antonio Napoli & Danilo Fum
- Neural Correlates of Temporal Credit Assignment
  Matthew M. Walsh & John R. Anderson

12:00 pm **Lunch** see map for options

Executive Planning Meeting LeBow 240*

- Anyone interested in helping to plan the future of ICCM is welcome to attend; advance notice of attendance would be appreciated but is not required.
- Lunch will be served at the meeting.

* **Directions to LeBow 240**: From the Bossone lobby, walk through the public table area and through the two sets of double doors behind this area. Enter the stairway to the right (or elevator on the left) and go up one floor. Make a right and walk down to #240 on your left.

1:30 pm **Talks: Neural Correlates** Bossone auditorium

Session Chair: Niels Taatgen

- Toward an Analog Neural Substrate for Production Systems
  Patrick Simen, Marieke Van Vugt, Fuat Balci, David Freestone, & Thad Polk
- Checking the Brain Mapping Hypothesis: Predicting and Validating BOLD Curves for a Complex Task Using ACT-R
  Claus Möbus, Jan Charles Lenk, Arno Claassen, Jale Özyurt, & Christiane Thiel
- Deductive Spatial Reasoning: From Neurological Evidence to a Cognitive Model
  Marco Ragni, Thomas Fangmeier, & Sven Brüssow
- Dynamic Behaviour of a Spiking Model of Action Selection in the Basal Ganglia
  Terrence C. Stewart, Xuan Choo, & Chris Eliasmith

3:00 pm **Break** Bossone lobby

3:30 pm **Talks: Perception, Action, & Spatial Processing** Bossone auditorium

Session Chair: J. Gregory Trafton

- Modeling Visual Search of Displays of Many Objects: The Role of Differential Acuity and Fixation Memory
  David Kieras
- Task-Constrained Interleaving of Perceptual and Motor Processes in a Time-Critical Dual Task as Revealed Through Eye Tracking
  Anthony J. Hornof & Yunfeng Zhang
- Modeling the Effects of Work Shift on Learning in a Mental Orientation and Rotation Task
  Tim Halverson, Glenn Gunzelmann, L. Richard Moore Jr., & Hans Van Dongen
- Using Diverse Cognitive Mechanisms for Action Modeling
  John E. Laird, Joseph Z. Xu, & Samuel Wintermute

5:00 pm **Poster Session** Bossone atrium, 3rd floor

See page 17 for listing of posters

6:30 pm End of Day

Sunday, August 8, 2010

9:00 am **Announcement of Best Student Poster Award** Bossone auditorium

Talks: Implementation & Scale

Session Chair: Wayne Gray

- Towards Efficiently Supporting Large Symbolic Declarative Memories
  Nate Derbinsky, John E. Laird, & Bryan Smith
- Concurrent Knowledge Activation Calculation in Large Declarative Memories
  Scott A. Douglass & Christopher W. Myers
- Improving the Reading Rate of Double-R-Language
  Mary Freiman & Jerry Ball
- The Evolution of a Goal-Directed Exploration Model: Effects of Information Scent and Go-back Utility on Successful Exploration
  Leonghwee Teo & Bonnie E. John

10:30 am **Break** Bossone lobby

11:00 am **Invited Talk** Bossone auditorium

Practice Makes Perfect: The Interplay between Science and Practical Application of Cognitive Modeling

Bonnie E. John, Carnegie Mellon University

12:00 pm End of Conference

Poster Sessions

Friday Posters

Bossone atrium, 3rd floor

1. How to Investigate the Living Cognition: An Application to Dynamic Simulation of Mental Activities while Driving
   Thierry Bellet, Pierre Mayenobe, & Jean-Charles Bornard
2. Locating the Neural Correlates of the Problem State Resource: Analyzing fMRI Data on the Basis of a Computational Model
   Jelmer Borst, Niels A. Taatgen, & Hedderik van Rijn
3. "Hello Java" Linking ACT-R 6 with a Java Simulation
   Philippe Büttner
4. Linguistic Spatial Gestures
   Leonard A. Breslow, Anthony M. Harrison, & J. Gregory Trafton
5. Nomination and Prioritization of Goals in a Cognitive Architecture
   Dongkyu Choi
6. Proactive Interference in Location Learning: A New Closed-Form Approximation
   Arindam Das & Wolfgang Stuerzlinger
7. Cognitive Modeling of Strategies in Dynamic Tasks
   Alberto De Obeso Orendain & Sharon Wood
8. Dimensions of Leader-in-Context Models
   Ceyhun Eksin, Barry G. Silverman, David Pietrocola, & Rui Kang
9. An Algorithm for Self-Motivated Hierarchical Sequence Learning
   Olivier L. Georgeon, Jonathan H. Morgan, Frank E. Ritter
10. Answer Set Programming for Computational Psychological Models
    Sara Girotto & Marcello Balduccini
11. Towards a Cognitive Model of Conceptual Blending
    Markus Guhe, Alan Smaill, & Alison Pease
12. Guidelines for Developing Explainable Cognitive Models
    Maaike Harbers, Joost Broekens, Karel van den Bosch, & John-Jules Meyer
13. Prediction Intervals for Performance Prediction
    Tiffany S. Jastrzembski, Kelly Addis, Michael Krusmark, Kevin A. Gluck, & Stuart Rodgers
14. Exploration of Costs and Benefits of Predictive Human Performance Modeling for Design
    Bonnie E. John & Tiffany S. Jastrzembski
15. Integrating Fast and Slow Cognitive Processes
    William G. Kennedy & Magdalena Bugajska

[Doctoral Consortium Posters]

16. Contextual Memory for Goals: On the Role of Context, Attention, and Intention in Cognitive Control
    Michel E. Brudzinski, Rensselaer Polytechnic Institute
17. Learning to Use Memory
    Nicholas A. Gorski, University of Michigan
18. Recognizing Behaviors and the Intentional State of the Participants
    Wesley Kerr, University of Arizona
19. A Probabilistic Model of Phonetic Cue Restructuring
    James P. Kirby, University of Chicago
20. Modeling Memes, A Memetic View of Affordance Learning
    Benjamin D. Nye, University of Pennsylvania
21. Exploring a Novel Training Paradigm for Knowledge and Skills Acquisition
    Jaehyon Paik, Pennsylvania State University

Saturday Posters

Bossone atrium, 3rd floor

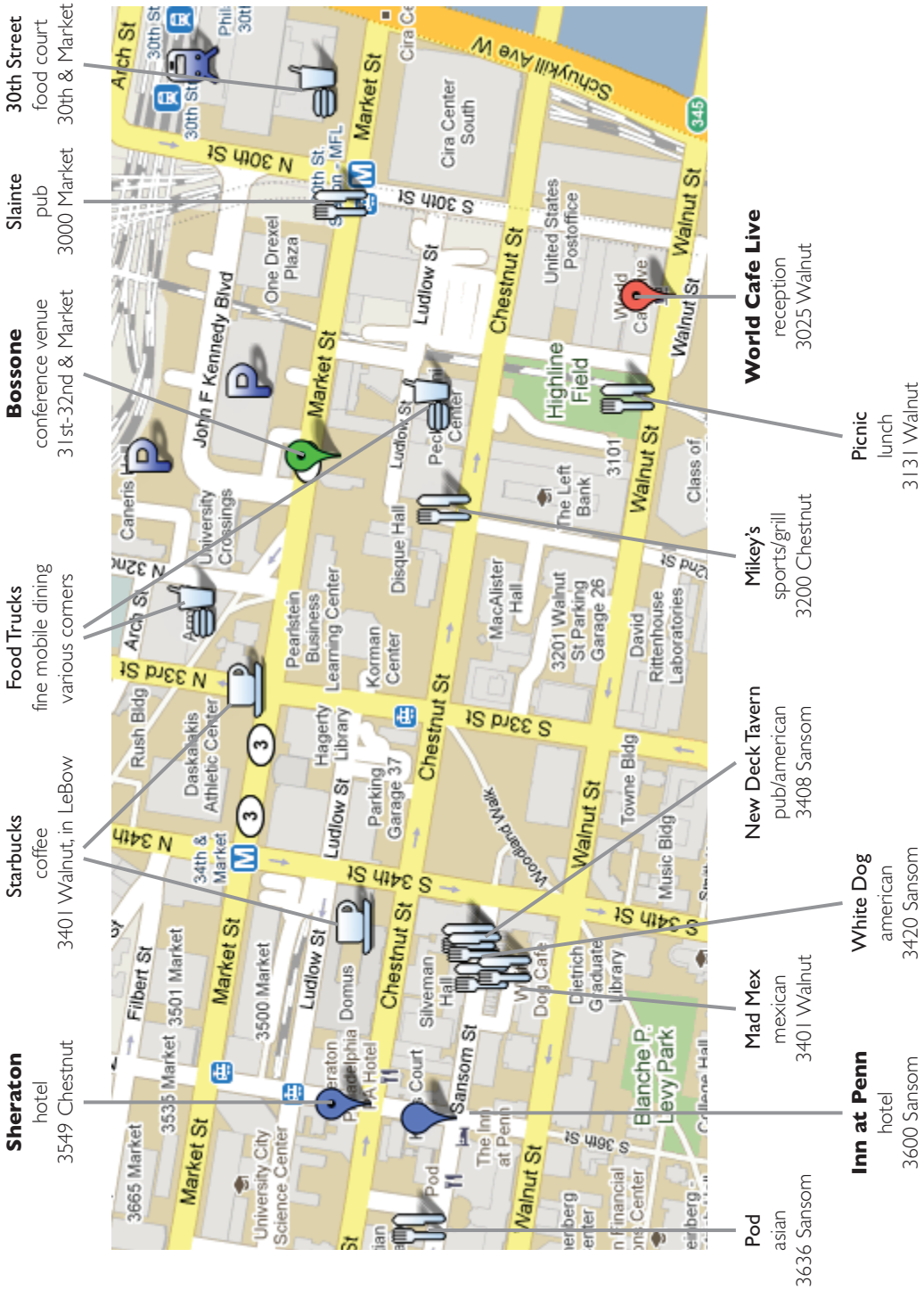
1. **Using A* Graph Traversal to Model Conflict Resolution in Air Traffic Control**
   Stefan Lehmann, Scott Bolland, Roger Remington, Michael S. Humphreys, & Andrew Neal
2. **Computational Models of Perceptual Learning across Multiple Auditory Tasks: Modeling Daily Learning Limits as Memory Decay**
   David Little & Bryan Pardo
3. **A Human-Markov Chain Monte Carlo Method For Investigating Facial Expression Categorization**
   Daniel McDuff
4. **Developing a Model of Cognitive Lockup for User Interface Engineering**
   Tina Mioch, Rosemarijn Looije, & Mark Neerincx
5. **Modeling Statistical Learning and Response Inhibition with the Change Signal Task**
   L. Richard Moore Jr., Glenn Gunzelmann, Joshua W. Brown
6. **Cognitive Modeling of the Acquisition of a Highly Inflected Verbal System**
   Jesús Oliva, José Ignacio Serrano, María Dolores del Castillo, & Ángel Iglesias
7. **Building Large Learning Models with Herbal**
   Jaehyon Paik, Jong W. Kim, Frank E. Ritter, Jonathan H. Morgan, Steven R. Haynes, & Mark A. Cohen
8. **Accountable Modeling in ACT-UP, a Scalable, Rapid-Prototyping ACT-R Implementation**
   David Reitter & Christian Lebiere
9. **Modeling a Three Term Fan Effect**
   Matthew F. Rutledge-Taylor, Aryn A. Pyke, Robert L. West, & Hana Lang
10. **A Computational Account of Complex Mental Image Construction**
    Jan Frederik Sima
11. **Deriving Behavior from Personality: A Reinforcement Learning Approach**
    Christopher Simpkins, Charles L. Isbell Jr., & Nicholas Marquez
12. **LETF: A Lisp-Based Exploratory Testing Framework for Computational Cognitive Models**
    Clayton T. Stanley
13. **A Cognitive Model of the Acquisition and Use of Referring Expressions**
    Jacolien van Rij, Hedderik van Rijn, & Petra Hendriks
14. **Interference and ACT-R: New evidence from the fan effect**
    Robert L. West, Aryn A. Pyke, Matthew F. Rutledge-Taylor, & Hana Lang
15. **An Online Database of ACT-R Parameters: Towards a Transparent Community-Based Approach to Model Development**
    Tsunhin John Wong, Edward T. Cokely, & Lael J. Schooler

[Doctoral Consortium Posters]

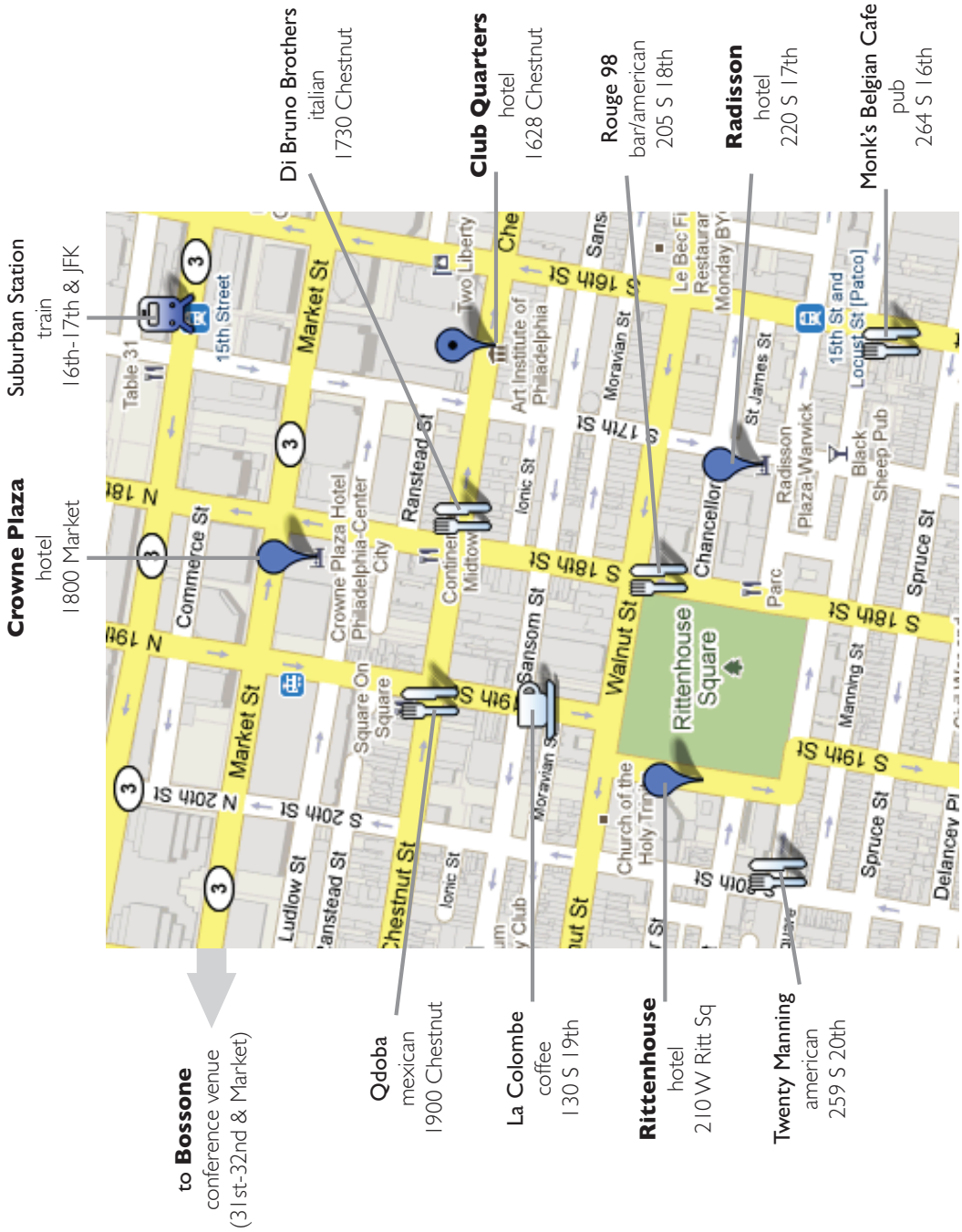
16. **Towards Descriptive and Prescriptive Double-Loop Learning Agents**
    Ceyhun Eksin, University of Pennsylvania
17. **Understanding Strategic Adaptation in Multitask Settings**
    Christian P. Janssen, University College London
18. **Canonical Behavior Patterns**
    Walter C. Mankowski, Drexel University
19. **Modeling of Modality Selection in Multimodal Human-Computer Interaction**
    Stefan Schaffer, Berlin Institute of Technology
20. **Visual Search Strategies and the Layout of the Display**
    Bella Z. Veksler, Rensselaer Polytechnic Institute

Maps

University City



Center City


Suburban Station
train
16th-17th & JFK
Crowne Plaza
hotel
1800 Market
Di Bruno Brothers
italian
1730 Chestnut
Club Quarters
hotel
1628 Chestnut
Rouge 98
bar/american
205 S 18th
Radisson
hotel
220 S 17th
Monk's Belgian Cafe
pub
264 S 16th
to Bossone
conference venue
(31st-32nd & Market)
Qdoba
mexican
1900 Chestnut
La Colombe
coffee
130 S 19th
Rittenhouse
hotel
210 W Ritt Sq
Twenty Manning
american
259 S 20th
Market St
Commerce St
Ranstead St
Ludlow St
Chestnut St
Sansom St
Walnut St
Spruce St
Manning St
Rittenhouse Square
S 16th St
S 17th St
S 18th St
S 19th St
S 20th St
N 19th
N 18th
15th Street
Table 31
Two Liberty
Art Institute of Philadelphia
Crowne Plaza Hotel Philadelphia-Center City
Square On Square
Ionic St
Moravian St
Church of the Holy Trinity
Chancellor
Parc
St James St
Radisson Plaza-Warwick
15th St and Locust St [Patco]
Black Sheep Pub
Le Bec Fi Restaurar Monday BY
Delancey Pl