

**AISB 2004 Convention**  
**Symposium on Adaptive Agents and Multi-Agent Systems**  
**Programme**

Venue: Music Lecture Theatre 1, Ground floor, Music & ICSRiM building  
**Monday, 29 March 2004**

08:00–09:00	<b>Registration:</b> New School of Music & ICSRiM building, Cavendish Road, University of Leeds
09:00–09:05	<b>AISB 2004 Convention, Opening Session:</b> Dr Kia Ng
09:05–10:00	<b>Plenary keynote</b> (Music Lecture Theatre 1): Prof Anthony Cohn Cognitive Vision: integrating symbolic qualitative representations with computer vision
10:00–10:25	Coffee/tea break
<b>Session 1</b>	
10:25–10:30	Welcome
10:30–12:30	<ul style="list-style-type: none"> <li>• “Time Management Adaptability in Multi-Agent Systems”, <i>A. Helleboogh, T. Holvoet, D. Weyns</i></li> <li>• “Dynamic and Distributed Interaction Protocols in Open Multi-Agent Systems”, <i>J.P. McGinnis</i></li> <li>• “A Role Based Model for Adaptive Agents”, <i>D. Weyns, K. Schelfhout, T. Holvoet, O. Glorieux</i></li> <li>• “Using XCS to Build Adaptive Agents”, <i>Z. Guessoum, L. Rejeb, O. Sigaud</i></li> <li>• “Automated Component-Based Configuration: Promises and Fallacies”, <i>S. van Splunter, N. Wijngaards, F. Brazier, D. Richards</i></li> </ul>
12:30–14:00	Lunch break
<b>Session 2</b>	
14:00–15:30	<ul style="list-style-type: none"> <li>• “Reinforcement Learning of Coordination in Heterogeneous Cooperative Multi-Agent Systems”, <i>S. Kapetanakis, D. Kudenko</i></li> <li>• “Multi-Agent Coordination in Tree Structured Multi-Stage Games”, <i>K. Verbeeck, A. Nowe, M. Peeters</i></li> <li>• “Baselines for Joint-Action Reinforcement Learning of Coordination in Cooperative Multi-Agent Systems”, <i>M. Carpenter, D. Kudenko</i></li> </ul>
15:30–16:00	Coffee/tea break
<b>Session 3</b>	
16:00–17:00	<ul style="list-style-type: none"> <li>• “Interactive Multi-Agent Learning”, <i>P.R. Graca, G. Gaspar</i></li> <li>• “A Motivation-based Approach for Autonomous Generation and Ranking of Goals in Artificial Agents”, <i>L. Macedo, A. Cardoso</i></li> <li>• “Self-adaptive network of cooperative neuro-agents”, <i>J.P. Mano, P. Glize</i></li> <li>• “A Multi-Agent Framework for Web Information Retrieval”, <i>P.A.C. Sousa, J.P. Pimentao, B.R.D. Santos, A.S. Garcao</i></li> </ul>

**Tuesday, 30 March 2004**

Venue: Music Lecture Theatre 1, Ground floor, Music & ICSRiM building

08:15–09:00	<b>Registration:</b> New School of Music & ICSRiM building, Cavendish Road, University of Leeds
09:00–10:00	<b>Plenary keynote</b> (Music Lecture Theatre 1): Prof Antonio Camurri Expressive Gesture and Multimodal Interactive Systems
10:00–10:30	Coffee/tea break
10:30–11:30	<b>AAMAS-4 Keynote Lecture:</b> Juergen Schmidhuber, IDSIA, Switzerland: “Gödel Machines and other Wonders of the New, Rigorous, Universal AI”
<b>Session 4</b>	
11:30–12:30	<ul style="list-style-type: none"> <li>• “Dynamic Scheduling of Multiple Agents for a Heterogeneous Task Stream”, <i>N. Windelinckx, M. Strens</i></li> <li>• “Robust Online Reputation Mechanism by Stochastic Approximation”, <i>T. Sakai, K. Terada, T. Araragi</i></li> </ul>
12:30–14:00	Lunch break
<b>Session 5</b>	
14:00–15:15	<ul style="list-style-type: none"> <li>• “Evolving the Game of Life”, <i>D. Kazakov, M. Sweet</i></li> <li>• “The Role of Environment Structure in Multi-Agent Simulations of Language Evolution”, <i>M. Bartlett, D. Kazakov</i></li> <li>• “The Strategic Control of an Ant-Based Routing System using Neural Net Based Q-Learning Agents”, <i>D. Legge, P. Baxendale</i></li> </ul>
15:15–15:30	• Concluding Discussion
15:30–16:00	Coffee/tea break

AISB 2004 Convention  
**Symposium on Emotion, Cognition, and  
Affective Computing**

# Programme

Venue: Music Lecture Theatre 2, Ground floor, Music & ICSRiM building

**Thursday, 1 April 2004**

08:15–09:00	<b>Registration:</b> New School of Music & ICSRiM building, Cavendish Road, University of Leeds
09:00–10:00	<b>Plenary keynote</b> (Music Lecture Theatre 1): Dr Ian Cross The social mind and the emergence of musicality: implications for modelling music
10:00–10:25	Coffee/tea break
10:25–10:30	Symposium welcome and introduction
10:30–11:00	On the Relation between Emotion and Entropy, <i>R. Belavkin</i>
11:00–11:30	Integration of Psychological Models in the Design of Artificial Creatures, <i>C.M. Bryant, G.J.F. Jones and A.M. Wills</i>
11:30–12:00	Why do anything? Emotion, Affect and the Fitness Function underlying Behaviour and Thought, <i>D.N. Davis</i>
12:30–14:00	Lunch break
14:00–14:30	Do Somatic Markers need to be Somatic? Analogies from Evolution and Hardware Interlocks, <i>C.G. Johnson</i>
14:30–15:00	Emotion-Based Planning, <i>L. Macedo and A. Cardoso</i>

**AISB 2004 Convention**  
**COST287-ConGAS Symposium on Gesture Interfaces for Multimedia Systems (GIMS)**

[www.leeds.ac.uk/aisb/gims](http://www.leeds.ac.uk/aisb/gims)

# Programme

Venue: Rehearsal Hall (B09, Basement), Music & ICSRiM building

**Monday, 29 March 2004**

08:00–09:00	<b>Registration:</b> New School of Music & ICSRiM building, Cavendish Road, University of Leeds
09:00–09:05	<b>AISB 2004 Convention, Opening Session:</b> Dr Kia Ng
09:05–10:00	<b>Plenary keynote</b> (Music Lecture Theatre 1): Prof Anthony Cohn Cognitive Vision: integrating symbolic qualitative representations with computer vision
10:00–10:30	Coffee/tea break
<b>Session 1. Chair: Nicola Bernardini</b>	
10:30–10:50	Object Design Considerations for Tangible Musical Interfaces ( <i>M. Kaltenbrunner, S. O'Modhrain, E. Costanza</i> )
10:50–11:10	The Scangloves: a Video-Music Instrument Based on Scanned Synthesis ( <i>L. Kessous, D. Arfib</i> )
11:10–11:30	Novagen: A Combination of Eyesweb and an Elaboration-Network Representation for the Generation of Melodies under Gestural Control ( <i>A. Marsden</i> )
11:30–11:50	Virtual Sculpture – Gesture-Controlled System for Artistic Expression ( <i>M. Marshall</i> )
11:50–12:10	Oscillation: Work for Saxophonist, 3D Animation and Real-time Sound Processing Controlled by Motion Capture Data ( <i>F. Schroeder, P. Rebelo, P. Nelson</i> )
12:10–12:30	A Movement Recognition Engine for the Development of Interactive Multimedia Works ( <i>T. Ingalls, T. Rikakis, J. James, G. Qian, L. Olson, F. Guo, S. Wong</i> )
12:30–14:00	Lunch break
<b>Session 2. Chair: Antonio Camurri</b>	
14:00–14:15	Motion and Emotion using Home-made Digital Musical Instruments ( <i>D. Arfib, J.-M. Couturier, L. Kessous</i> )
14:15–14:30	Improving Gestural Articulation through Active Tactual Feedback in Musical Instruments ( <i>B. Bongers, G. van der Veer and M. Simon</i> )
14:30–14:45	Toward Real-time Multimodal Processing: EyesWeb 4.0 ( <i>A. Camurri, P. Coletta, A. Massari, B. Mazzarino, M. Peri, M. Ricchetti, A. Ricci, G. Volpe</i> )
14:45–15:00	Using Optical Motion Capture for Gesture Recognition ( <i>D. Lowe, N. Murray, J. Y. Goulermas and T. Fernando</i> )
15:00–15:15	On Webcams and Ultrasonic Anemometers: Applications of Touchless Sensors in the White Cube Context ( <i>M. Steiner</i> )
15:15–15:30	Sensing Systems for Interactive Architecture ( <i>B. Bongers</i> )
15:30–16:00	Coffee/tea break
<b>Session 3. Chair: Kia Ng</b>	
16:00–16:30	Palpable pixels and virtual strings ( <i>B. Bongers</i> )
16:30–17:00	EyesWeb 4.0 ( <i>A. Camurri, G. Volpe</i> )
17:00–17:30	EyeCon – A Motion Sensing Tool for Creating Interactive Dance, Music and Video Projections ( <i>R. Wechsler, F. Weiß, P. Dowling</i> )

You may also be interested in the plenary keynote by Prof Antonio Camurri (“Expressive Gesture and Multimodal Interactive Systems”) on Tuesday 30 March 2004, 9-10am. There is also a meeting of the EU COST action 287 "ConGAS - Gestural Controlled Audio Systems" Working Group 2 on Tuesday 30 March 2004. If you are interested to attend the meeting, please contact [icsrim@leeds.ac.uk](mailto:icsrim@leeds.ac.uk) or inform the co-chairs.

## COST-ConGAS WG2 Meeting

Venue: Rehearsal Hall (B09, Basement), Music & ICSRiM building

**Tuesday, 30 March 2004**

08:15–09:00	<b>Registration:</b> New School of Music & ICSRiM building, Cavendish Road, University of Leeds
09:00–10:00	<b>Plenary keynote</b> (Music Lecture Theatre 1): Prof Antonio Camurri Expressive Gesture and Multimodal Interactive Systems
10:00–10:30	Coffee/tea break
10:30–12:30	<ul style="list-style-type: none"> <li>• Agenda</li> <li>• ICSRiM Lab tour</li> </ul>
12:30–14:00	Lunch break
14:00–15:30	ConGAS meeting: presentations and discussions
15:30–16:00	Coffee/tea break
16:00–17:30	ConGAS meeting: hands-on/demo

**AISB 2004 Convention**  
**Symposium on the Immune System and Cognition (ImmCog-2004)**

# Programme

Venue: Music Lecture Theatre 2, Ground floor, Music & ICSRiM building  
**Tuesday, 30 March 2004**

08:15–09:00	<b>Registration:</b> New School of Music & ICSRiM building, Cavendish Road, University of Leeds
09:00–10:00	<b>Plenary keynote</b> (Music Lecture Theatre 1): Prof Antonio Camurri Expressive Gesture and Multimodal Interactive Systems
10:00–10:25	Coffee/tea break
10:25–10:30	<b>Opening comments:</b> Simon Garrett
10:30–12:30	<ul style="list-style-type: none"> <li>• Invited talk: An Introduction to AIS, Jon Timmis</li> <li>• PICS: Pittsburgh Immune Classifier System, Alessio Gaspar</li> <li>• What's most interesting: cognition, homeostasis or autonomy? Mark Neal</li> </ul>
12:30–14:00	Lunch break
14:00–15:30	<ul style="list-style-type: none"> <li>• An Artificial Immune System for Misbehavior Detection in Mobile Ad Hoc Networks with both Innate, Adaptive Subsystems and with Danger Signal, Slavisa Sarafijanovic</li> <li>• The Immune System, Networks and Cognition: Enough Thoughts for a Debate? Jon Timmis</li> <li>• Immune Systems, Danger Theory and Intrusion Detection, Jamie Twycross</li> </ul>
15:30–15:55	Coffee/tea break
15:55–17:00	<ul style="list-style-type: none"> <li>• Discussion session, Simon Garrett</li> </ul>

**Wednesday, 31 March 2004**

Venue: Music Lecture Theatre 2, Ground floor, Music & ICSRiM building

08:15–09:00	<b>Registration:</b> New School of Music & ICSRiM building, Cavendish Road, University of Leeds
09:00–10:00	<b>Plenary keynote</b> (Music Lecture Theatre 1): Dr David Randell Reasoning about Perception, Space and Motion: a Cognitive Robotics Perspective
10:00–10:25	Coffee/tea break
10:25–11:25	<b>Invited talk: Immune Modelling,</b> Derek Smith
11:30–12:35	<ul style="list-style-type: none"> <li>• Exploiting Immune Memory for Supervised Learning, Andrew Watkins</li> <li>• An Investigation into Immunological Robot Controllers, Andrew Webb</li> <li>• Closing comments, Simon Garrett</li> </ul>
12:35–13:30	Lunch break
13:30–14:30	<ul style="list-style-type: none"> <li>• <b>AISB 2004 AGM</b> (Music Lecture Theater 1, Ground floor)</li> </ul>

**AISB 2004 Convention**  
**Symposium on Language, Speech and Gesture for Expressive Characters**

# Programme

Venue: Roger Stevens Lecture Theatre 24  
**Tuesday, 30 March 2004**

08:15–09:00	<b>Registration:</b> New School of Music & ICSRiM building, Cavendish Road, University of Leeds
09:00–10:00	<b>Plenary keynote</b> (Music Lecture Theatre 1): Prof Antonio Camurri Expressive Gesture and Multimodal Interactive Systems
10:00–10:25	Coffee/tea break
10:25–10:30	<b>Opening comments:</b>
<b>Session 2: Gesture</b>	
10:30–12:15	<ul style="list-style-type: none"> <li>• "Virtual Human Signing as Expressive Animation", <i>John Glauert, Ralph Elliott, Richard Kennaway &amp; Barry-John Theobald</i></li> <li>• "Defining the Gesticon: Language and Gesture Coordination for Interacting Embodied Agents", <i>Brigitte Krenn &amp; Hannes Pirker</i></li> <li>• "Pragmatics of Body-Speech Coordination in Multi-Modal Expression", <i>Satinder P. Gill &amp; Masahito Kawamori</i></li> </ul>
12:15–13:30	Lunch break
<b>Session 3: Motion and facial expression</b>	
13:30–15:15	<ul style="list-style-type: none"> <li>• "Artistically Based Computer Generation of Expressive Motion", <i>Michael Neff &amp; Eugene Fiume</i></li> <li>• "Developing a Virtual Ballet Dancer to Visualise Choreography", <i>Royce Neagle, Kia Ng &amp; Roy Ruddle</i></li> <li>• "A Probabilistic Hierarchical Framework for Active Appearance Model", <i>Lukasz Zalewski &amp; Shaogang Gong</i></li> </ul>
15:15–15:45	Coffee/tea break
<b>Session 4: Comment and demo session</b>	
15:45–17:30	<ul style="list-style-type: none"> <li>• "To be, or to seem to be? That is the question", <i>Chris Newell</i></li> <li>• <i>System Demonstrations</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Workshop Dinner</b> (...don't make other plans!)</li> </ul>

**Wednesday, 31 March 2004**

Venue: Roger Stevens Lecture Theatre 24

08:15–09:00	<b>Registration:</b> New School of Music & ICSRiM building, Cavendish Road, University of Leeds
09:00–10:00	<b>Plenary keynote</b> (Music Lecture Theatre 1): Dr David Randell Reasoning about Perception, Space and Motion: a Cognitive Robotics Perspective
10:00–10:30	Coffee/tea break
<b>Session 2: Speech</b>	
10:30–12:15	<ul style="list-style-type: none"> <li>• "Speaking with Emotions", <i>E. Bevacqua, M. Mancini &amp; C. Pelachaud</i></li> <li>• "Reusing Motion Data to Animate Visual Speech", <i>James D. Edge, Manuel A. Sanchez Lorenzo &amp; Steve Maddock</i></li> <li>• "Expressive Speech Characteristics in the Communication with Artificial Agents", <i>Kirsten Fischer</i></li> </ul>
12:15–13:30	Lunch break
13:30–14:30	<ul style="list-style-type: none"> <li>• <b>AISB 2004 AGM</b> (Music Lecture Theater 1, Ground floor)</li> </ul>
<b>Session 3: Emotion and expressive behaviour</b>	
14:30–16:15	<ul style="list-style-type: none"> <li>• "Modelling character emotion in an interactive virtual environment", <i>Mehdi El Jed, Nico Pallamin, Julie Dugdale &amp; Bernard Pavard</i></li> <li>• "Influenceable Embodied Conversational Agent", <i>Vincent Maya, Myriam Lamolle &amp; Catherine Pelachaud</i></li> <li>• "Expressive characters and a text chat interface", <i>Marco Gillies, Barry Crabtree &amp; Daniel Ballin</i></li> </ul>
16:15–16:45	Coffee/tea break
<b>Session 4: Systems</b>	
16:45–18:30	<ul style="list-style-type: none"> <li>• "Artificial companions for older people", <i>David Benyon, Greg LePlatre, Oli Mival, Stewart Cringean &amp; Gopal Vaswani</i></li> <li>• "To tell or not to tell...Building an interactive virtual storyteller", <i>Andre Silva, Guilherme Raimundo, Celso de Melo &amp; Ana Paiva</i></li> <li>• "Don't hit me! - combining language and action in FearNot!", <i>Sandy Louchart, Ruth Aylett, Jonathan Pickering &amp; Daniela Romano</i></li> </ul>

# Automated Reasoning Workshop Programme

Venue: Music Lecture Theatre 1, Ground floor, Music & ICSRiM building  
**Wednesday, 31 March 2004**

08:15–09:00	<b>Registration:</b> New School of Music & ICSRiM building, Cavendish Road, University of Leeds
09:00–10:00	<b>Plenary keynote</b> (Music Lecture Theatre 1): Dr David Randell Reasoning about Perception, Space and Motion: a Cognitive Robotics Perspective
10:00–10:25	Coffee/tea break
10:25–10:30	ARW Welcome
<b>Technical Session 1: NON-CLASSICAL SYSTEMS</b>	
10:30–11:45	<ul style="list-style-type: none"> <li>• Implementation of a tableau theorem prover for modal logic, Zhen Li</li> <li>• A principle for incorporating axioms into the first-order translation of modal formulae, Renate A. Schmidt and Ullrich Hustadt</li> <li>• A Three-Valued Hoare Calculus, Viviana Bono and Manfred Kerber</li> <li>• E-Checker: A prototype tool for investigating some properties of multivalent logic systems, David Anderson and Peter W. Pearson</li> <li>• Abductive Logic Programming with ClIFF, Ulle Endriss, Paolo Mancarella, Fariba Sadri, Giacomo Terreni, and Francesca Toni</li> <li>• Short Poster introductions:             <ul style="list-style-type: none"> <li>○ Case studies for first-order temporal logic, M.Carmen Fernandez Gago</li> <li>○ Qualitative Descriptions of Location: an approach using a hybrid matroid structure, Anthony J. Roy</li> <li>○ Environmental knowledge representation, Antony Galton and James Hood</li> <li>○ Compilation of quasi-destructive unification of type feature structures, Liviu Ciortuz</li> <li>○ Specifying and Verifying Security Protocols using Temporal Logics of Knowledge, Clare Dixon, Mari-Carmen Fernandez Gago, Michael Fisher and Wiebe van der Hoek</li> </ul> </li> </ul>
11:45–12:30	Poster Session 1
12:30–13:30	Lunch break
13:30–14:30	<ul style="list-style-type: none"> <li>• <b>AISB 2004 AGM</b> (Music Lecture Theater 1, Ground floor)</li> </ul>
<b>Technical Session 1: SPATIAL and TEMPORAL REASONING</b>	
14:30–15:30	<ul style="list-style-type: none"> <li>• Logical representation for route graphs, Paolo Torrini</li> <li>• Michael Fischer, Clare Dixon, Boris Konev, Ullrich Hustadt, and Frank Wolter</li> <li>• Deductive Verification of Infinite Systems: Broadcast Protocols Michael Fisher and Alexei Lisitsa, Fisher</li> <li>• A Clausal Resolution Method for Branching-Time Logic ECTL+, Alexander Bolotov and Artie Basukoski</li> </ul>
14:45–15:30	Poster Session 2
15:30–15:55	Coffee/tea break
15:55–17:00	Invited talk by Jacques Fleuriot: Interactive Theorem Proving in Geometry: issues and applications
19:30	Workshop Dinner: Darbar restaurant

## Thursday, 1 April 2004

Venue: Music Lecture Theatre 1, Ground floor, Music & ICSRiM building

08:15–09:00	<b>Registration:</b> New School of Music & ICSRiM building, Cavendish Road, University of Leeds
09:00–10:00	<b>Plenary keynote</b> (Music Lecture Theatre 1): Dr Ian Cross The social mind and the emergence of musicality: implications for modelling music
10:00–10:25	Coffee/tea break
10:25–11:30	Invited talk by Franz Baader: From Tableau to Automata for Description Logics
<b>Technical Session 3: AUTOMATED REASONING TECHNIQUES</b>	
11:30–12:00	<ul style="list-style-type: none"> <li>• Reasoning about types in a general purpose inference engine, Allan Ramsay</li> <li>• Proof planning: Comparing OMEGA, lambda-CLAM and ISAPLANNER, Lucas Dixon, Mateja Jamnik, and Martin Pollet</li> <li>• Mechanized Support for Retrenchment, Simon Fraser and Richard Banach</li> </ul>
12:00–12:30	Poster Session 3
12:30–14:00	Lunch break (and ARW Committee Meeting)
<b>Technical Session 4: LEARNING and KNOWLEDGE</b>	
14:00–14:40	<ul style="list-style-type: none"> <li>• Automatic conjecture modification, Alison Pease and Simon Colton</li> <li>• Looking for Logic in Vision, Paulo Santos, Derek Magee and Anthony Cohn</li> <li>• Automatic Generation of Classification Theorems for Finite Algebras, Simon Colton, Andreas Meier, Volker Sorge, Roy McCasland</li> <li>• A reasoning mechanism for corpus-based knowledge representation, Shabnam Surjitsingh Ivkovic and Anne Banks Pidduck</li> </ul>
14:40–15:30	Difficult Questions for Automated Reasoning
15:30–15:55	Coffee/tea break
15:55	Closing Session