AAAI 1992

Spring Symposium Series

March 25-27, 1992
Stanford University, California

Registration

The American Association for Artificial Intelligence, in cooperation with Stanford University's Department of Computer Science, presents the 1992 Spring Symposium Series, to be held March 25–27, 1992, at Stanford University. The topics of the nine symposia in the 1992 Spring Symposium Series are:

- AI in Medicine
- Cognitive Aspects of Knowledge Acquisition
- Computational Considerations in Supporting Incremental Modification and Reuse
- Control of Selective Perception
- Knowledge Assimilation
- Practical Approaches to Scheduling and Planning
- Producing Cooperative Explanations
- Propositional Knowledge Representation
- Reasoning with Diagrammatic Representations

The highlights of each symposium will be presented at a special plenary session. Working notes will be prepared and distributed to participants in each symposium, but will not otherwise be available.

Each symposium will have limited attendance. Participants will be expected to attend a single symposium throughout the symposium series. In addition to participants selected by the program committees of the symposia, a limited number of other interested parties will be allowed to register in each symposium on a first-come, first-served basis. To register, please fill out the enclosed form, and send it along with payment to:

Spring Symposium Series–92
AAAI
445 Burgess Drive
Menlo Park, CA 94025

Artificial Intelligence in Medicine

In the 1992 AIM Symposium, we seek to emphasize representing and reasoning with medical knowledge. To stimulate comparisons, the program committee has selected a recent review article to be used as the focus of workshop activities. The article "Graft-versus-Host Disease" from the *New England Journal of Medicine* volume 324, number 10, pages 667–674 (March 7, 1991), describes a wide range of medical concepts. Investigators are asked to describe how they would represent any aspect (diagnostic, therapeutic, physiologic) of this knowledge in their formalism or to demonstrate how their methodology would approach the required reasoning tasks.

Program Committee: Bruce Buchanan, Michael Kahn (cochair, kahn@informatics.wustl.edu), Mark Musen, Jack Smith (cochair), Peter Szolovits.

Cognitive Aspects of Knowledge Acquisition

The objective of this symposium is to bring together a multi-disciplinary group of researchers to focus on issues associated with cognitive aspects of knowledge acquisition. It will have as its theme the knowledge processes of society, what these are, how the knowledge construct arises in model, what purpose it serves as a theoretical and practical construct, how individual cognitive processes mesh with socio-cultural processes, and the roles of information technology and artificial intelligence in the development of these processes.

Program Committee: John H. Boose, Bill Clancey, Brian Gaines (gaines@cpsc.ucalgary.ca), Alain Rappaport

Computational Considerations in Supporting Incremental Modification and Reuse

The ability to modify previously synthesized artifacts (such as plans, designs, and programs) to meet new specifications is very valuable for many tasks. This symposium seeks to bring together researchers working on modification issues in various areas to facilitate sharing of techniques. The major goals of the symposium are to identify the principles that have been used in developing methods for incremental modification in various domains, classify the tasks to which they are applicable, and search for unifying themes among the diversity of modification strategies and systems.

Program Committee: Ashok Goel, Subbarao Kambhampati (chair, rao@cs.stanford.edu), John Mylopolous, Bill Swartout

Control of Selective Perception

Sensing concerns are increasingly being recognized as crucial to the development of competent mobile robots and other autonomous agents. As tasks and environments increase in complexity, however, it is not feasible to continually sense all relevant features. The robot or agent must selectively perceive features of the environment: it must decide what and where to sense, when to sense, and at what resolution. Often these decisions depend on the context and the task being performed. The goal of this symposium is to bring together researchers who are tackling the problem of actively controlling sensory processing requirements through a diversity of techniques and methodologies, both empirical and theoretical.

Program Committee: Dana Ballard, Tom Dean, James Firby, Reid Simmons (chair, reid.simmons @cs.cmu.edu)

Knowledge Assimilation

In recent years, much machine learning research has concentrated on speedup learning and concept induction as separate tasks. Important new paradigms have emerged, notably explanation-based learning and PAC theory. However, little attention has been paid to learning techniques that enable an agent to improve its performance along multiple dimensions over time. The symposium will focus on this task as a potential new unifying theme for research. The title "Knowledge Assimilation" calls attention to the need to mesh together existing and newly acquired knowledge in improving the overall competence of an agent.

Program Committee: Tom Dietterich, Charles Elkan (elkan@cs.ucsd.edu), Oren Etzioni, Bart Selman

Practical Approaches to Scheduling and Planning

Government and industry require practical approaches to a diverse set of complex scheduling and planning problems. While scheduling has been studied in isolation for many years, recent advances in artificial intelligence, control theory, and operations research indicate a renewed interest in this area. In addition, the scheduling problem is being defined more generally, and work is beginning to consider the closed-loop use of scheduling systems in operational contexts. This symposium will serve to bring together theorists and practitioners from diverse backgrounds, with the aim of disseminating recent results and fostering the development of a cross-discipline understanding. Send questions regarding the objectives and content of this symposium to zweben@ptolemy.arc.nasa.gov.

Program Committee: Mark Drummond, Mark Fox, Austin Tate, Monte Zweben

Producing Cooperative Explanations

Modeling the process of providing cooperative explanations is relevant to many different areas within AI. These areas include user and student modeling, discourse processing, plan formation, text generation, intelligent interfaces, and expert systems. This symposium will allow researchers to present and evaluate computational models of the process of providing these explanations. Some of the questions to be discussed include the techniques and knowledge required to support cooperative explanations, how to represent and evaluate explanations, how to re-explain, how the domain affects explanations, and how existing explanation systems work.

Program Committee: David Chin, Johanna Moore, Cecile Paris, Alex Quilici (chair, alex@wiliki.eng.hawaii.edu)

Propositional Knowledge Representation

The key to propositional knowledge representation is that propositions can be represented by terms in a formal representation language, and hence properties of propositions and beliefs about propositions can be represented. This facilitates the study of representation and reasoning about beliefs, nested beliefs, and other propositional attitudes such as desires, wants, hopes, and intentions. This symposium will bring together researchers interested in propositional knowledge representation, including those involved in propositional knowledge representation systems such as conceptual graphs, SNePS, propositional surrogates, and ViewGen.

Program Committee: John Barnden, Deepak Kumar (kumard@cs.buffalo.edu), Joao P.Martins, Stuart C. Shapiro (chair), John F. Sowa

Reasoning with Diagrammatic Representations

This symposium is designed to bring together researchers from AI and cognitive science who share an interest in computational and cognitive investigations of representations and processes that underlie imagery, and the role of imagery in inference and reasoning. Its goals are stimulating interdisciplinary dialogues, reviewing current state of research, investigating potential roles of diagrammatic reasoning in different tasks, and identifying directions for future research. Issues to be addressed include (but are not limited to) cognitive theories of imagery and imaginal reasoning, approaches to computational realization of diagrammatic representation and reasoning, constraints that cognitive theories provide to computational models, and potential AI applications.

Program Committee: B. Chandrasekaran (cochair), Yumi Iwasaki, Hari Narayanan (narayan@cis.ohio-state.edu), Herbert Simon (cochair)

Registration

All attendees must preregister.
Each symposium has a limited attendance, with priority given to invited attendees. **All accepted authors, symposium participants, and other invited attendees must register by January 31, 1992.** After that period, registration will be opened up to the general membership of AAAI and other interested parties. **All registrations must be postmarked by February 14, 1992.**

Your registration fee of $205.00 (students $85.00; legible proof of full-time student status must be included) covers your attendance at the symposium, a copy of the working notes for your symposium, and the reception.

Please fill out the attached registration

form and mail it with your fee to:

AAAI 1992 Spring Symposium Series
445 Burgess Drive
Menlo Park, CA 94025

Checks (drawn on US bank) or international money orders should be made out to AAAI. VISA, MasterCard and American Express are also accepted.

Parking will be available on the Stanford campus from March 25-27 for $15.00. Application for a parking permit is included on the attached registration form. A permit will be mailed to you with your preregistration materials along with a map and directions to the assigned lots.

Please note: Requests for refunds must be received in writing by March 6, 1992. A $25.00 processing fee will be levied on all refunds granted.

When you arrive at Stanford, please pick up your complete registration packet in the lobby of Kresge Auditorium, located next to the School of Law. Registration hours will be:

Tuesday, March 24:   2:00 PM – 5:00 PM
Wednesday, March 25: 8:00 AM – 5:00 PM
Thursday, March 26: 8:00 AM – 5:00 PM
Friday, March 27:   8:00 AM – 12:00 PM

Please call Annette Eldredge at 415/328-3123 for further information.

Tentative Program Schedule

(subject to change)

Wednesday, March 25
9:00 AM – 5:30 PM: Symposia Sessions
6:00 PM – 7:00 PM: Reception, Tressider Oak Lounge

Thursday, March 26
9:00 AM – 5:30 PM: Symposia Sessions
7:30 PM – 10:00 PM: Plenary Session, Kresge Auditorium

Friday, March 27
9:00 AM – 12:30 PM: Symposia Sessions

Hotels

For your convenience, AAAI has reserved a block of rooms at the following hotels. **Symposium attendees must contact the hotels directly. Please identify yourself as an American Association for Artificial Intelligence Spring Symposium registrant to qualify for the reduced rate.**

Creekside Inn (Best Western)
3400 El Camino Real
Palo Alto, CA 94306
415/493-2411 (Reserve before 3/1/92)
Rates: $62.00 (S), $68.00 (D)
Distance to Stanford Oval: 1.2 miles
Marguerite shuttle pick-up: 0.5 mile

Hyatt Palo Alto (Rickeys)
4219 El Camino Real
Palo Alto, CA 94306
415/493-8000 (Reserve before 3/10/92)
Rates: $88.00 (S), $98.00 (D)
Distance to Stanford Oval: 3.2 miles
Hotel shuttle to Stanford Oval

Mermaid Inn
727 El Camino Real
Menlo Park, CA 94025
415/323-9481 (Reserve before: 3/1/92)
Rates: $62.00 – $68.00 (S or D)
Distance to Stanford Oval: 1.9 miles

Riviera Motor Lodge
15 El Camino Real
Menlo Park, CA 94025
415/321-8772 (Reserve before 3/1/92)
Rates: $47.00 (S), $57.00 (D)
Distance to Stanford Oval: 1.4 miles

Stanford Park Hotel
100 El Camino Real
Menlo Park, CA 94025
415/322-1234 (Reserve before 3/10/92)
Rates: $110.00 (S or D)
Distance to Stanford Oval: 1.4 miles
Marguerite shuttle pick-up: 0.5 mile

Other Hotels

(Available only on a first-come, first served basis; all prices are subject to changes without notice)

The Cardinal Hotel

235 Hamilton Avenue
Palo Alto, CA 94301
415/323-5101

Rates: $45-$65 , Stanford rate (S or D)
Distance to Stanford Oval: 1.0 miles
Marguerite shuttle stop nearby

Hotel California

2431 Ash Street
Palo Alto, CA 94306
415/322-7666

Rates: $48 (S), $51 (D)
(Continental breakfast included)
Distance to Stanford Oval: 2.1 miles
Marguerite shuttle stop nearby

Travelodge

3255 El Camino Real
Palo Alto, CA 94306
415/493-6340

Rates: $50.00 (S), $58.00 (D)
Distance to Stanford Oval: 1 mile

Air Transportation

The American Association for Artificial Intelligence has selected American Airlines as the official carrier. Fares will reflect a five percent savings off any applicable discounted fare (except Canada) or a forty-five percent discount from the full roundtrip coach class fares (the discount is thirty-five percent for Canadian destinations or origins). A three-day advance purchase applies to all fares. The preferred travel agent is Custom Travel, phone 415-369-2105 or 800-367-2105, but you or your travel agent can also call American Airlines' toll-free number for reservations: 800-433-1790 between 6:00 AM and 12:00 MIDNIGHT CST. The special discount code is: *S01Z2U8

Restrictions: Reservations for flights requiring advance purchase must adhere to all the restrictions that apply to that fare.

Regular coach fares and some other non-restrictive fares do not require advance booking. To be sure of availability, book early. In order to qualify for these special discounted fares, travel must be round-trip within the continental United States and travel must take place between March 23 and March 29, 1992.

Disclaimer: In offering the Creekside Inn (Best Western), Hyatt Palo Alto (Rickeys), Stanford Park Hotel, Mermaid Inn, Riviera Motor Lodge, and American Airlines (hereinafter referred to as "Supplier") and all other service providers for the AAAI Spring Symposium Series, the American Association for Artificial Intelligence acts only in the capacity of agent for the Supplier which is the provider of transportation or of hotel rooms. Because the American Association for Artificial Intelligence has no control over the personnel, equipment or operations of providers of accommodations or other services included as part of the Symposium program, AAAI assumes no responsibility for and will not be liable for any personal delay, inconveniences or other damage suffered by symposium participants which may arise by reason of (1) any wrongful or negligent acts or omissions on the part of any Supplier or its employees, (2) any defect in or failure of any vehicle, equipment or instrumentality owned, operated or otherwise used by any Supplier, or (3) any wrongful or negligent acts or omissions on the part of any other party not under the control, direct or otherwise, of AAAI.

Ground Transportation

This information is the best available at time of printing. Fares and routes change frequently. Please check by telephoning the appropriate numbers below for the most up-to-date information.

Van

Airport Connection—Van service $20.00 one way to and from San Francisco Airport, for one or two persons to Palo Alto or Menlo Park. From San Jose Airport, shared ride service (no vans) is $29.00 to any location in Palo Alto or Menlo Park for one or two persons. Cash, major credit cards, or checks accepted. Call 415/363-1500 within California, or 800/247-7678 in other areas. White courtesy telephone available at San Francisco Airport.

Supershuttle—24 hour van service to

and from San Francisco Airport (upper level). San Francisco Airport–Palo Alto rates are: $23.00 for one person one way; $23.00 plus $7.00 for two persons going to the same address. Cash and major credit cards accepted. For reservations call 415/558-8500.

Stanford Shuttle

The Stanford University Marguerite Shuttle Bus service provides service from several points along El Camino Real, the train station, and other surrounding locations to the Stanford Oval as well as transportation around the Stanford campus. Complete Marguerite schedules will be included in registration packet.

Train

CalTrain runs between San Francisco and Palo Alto station starting at 4:50 AM with the last train leaving San Francisco at 10:00 PM (weekdays). The fare is $6.00 round trip for same-day travel, or $3.00 one way. For up-to-date fare information and time tables, call 415/557-8661 or toll free 800/558-8661.

Car

Hertz has been designated as the official rental car company for the AAAI Spring Symposium Series. To qualify for the special rates arranged with Hertz, please call the Hertz convention desk at 800/654-2240. Be sure to identify yourself as an attendee of the symposium, and give the code CV2109. Hertz has convenient rental desks located at both the San Francisco and San Jose airports, and at Hyatt Rickeys in Palo Alto. To be assured of the best possible rates at the time of booking, ask if there is a lower rate for the time of rental.

Registration Form—1992 AAAI Spring Symposium Series

ALL ATTENDEES MUST PREREGISTER
Please complete in full and return to AAAI, postmarked by January 31, 1992 (invited attendees), or by February 14, 1992 (general registration). *Please print or type.*

First name _____ Last name _____

Affiliation _____

Address: _____Home ☐ or Business ☐

City _____ State _____

Zip or postal code _____ Country _____

Daytime telephone: _____

Net address: _____

Symposium
(Please check only one)
☐ 1. AI in Medicine
☐ 2. Cognitive Aspects of Knowledge Acquisition
☐ 3. Computational Considerations in Supporting Incremental Modification & Reuse
☐ 4. Control of Selective Perception
☐ 5. Knowledge Assimilation
☐ 6. Practical Approaches to Scheduling and Planning
☐ 7. Producing Cooperative Explanations
☐ 8. Propositional Knowledge Representation
☐ 9. Reasoning with Diagrammatic Representations

Fee

☐ Regular: $ 205.00
☐ Student $85.00 *(students, must send legible proof of full-time student status)*
☐ Temporary Stanford University parking permit ($15.00)

TOTAL FEE *(Please enter correct amount)* $_____

Method of Payment *(please circle one)*

Check   Mastercard   VISA   American Express

Credit card number_____ Expiration date _____

Name (as it appears on card) _____

Signature _____

Please mail completed form with your payment to

AAAI Spring Symposium Series • 445 Burgess Drive • Menlo Park, California 94025-3496

Please Note: Requests for refunds must be received *in writing* by March 6, 1992.
A $25.00 processing fee will be levied on all refunds granted.

For Office Use Only

Check Number _____ Amount _____ Received _____