News and Notes

1. Neural Information Processing Systems—Natural and Synthetic

Monday, November 27–Thursday, November 30, 1989
Denver, Colorado

This is the third meeting of a high-quality, relatively small, inter-disciplinary conference which brings together neuroscientists, engineers, computer scientists, cognitive scientists, physicists, and mathematicians interested in all aspects of neural processing and computation. Several days of focussed workshops will follow at a nearby ski area. Major categories and examples of subcategories for papers are the following:

1. **Neuroscience:** Neurobiological models of development, cellular information processing, synaptic function, learning, and memory. Studies and analyses of neurobiological systems and development of neurophysiological recording tools.
2. **Architecture Design:** Design and evaluation of net architectures to perform cognitive or behavioral functions and to implement conventional algorithms. Data representation; static networks and dynamic networks that can process or generate pattern sequences.
3. **Learning Theory:** Models of learning; training paradigms for static and dynamic networks; analysis of capability, generalization, complexity, and scaling.
4. **Applications:** Applications to signal processing, vision, speech, motor control, robotics, knowledge representation, cognitive modelling and adaptive systems.
5. **Implementation and Simulation:** VLSI or optical implementation of hardware neural nets. Practical issues for simulations and simulation tools.

Technical Program. Plenary, contributed, and poster sessions will be held. There will be no parallel sessions. The full text of presented papers will be published.

Submission Procedures. Original research contributions are solicited, and will be refereed by experts in the respective disciplines. Authors should submit four copies of a 1000-word (or less) summary and four copies of a single-page 50–100 word abstract clearly stating their results by May 30, 1989. Indicate preference for oral or poster presentation and specify which of the above five broad categories and, if appropriate, sub-categories (for example, *Learning Theory: Complexity, or Applications: Speech*) best applies to your paper. Indicate presentation preference and category information at the bottom of each abstract page and after each summary. Failure to do so will delay processing of your submission. Mail submissions to Kathie Hibbard, NIPS89 Local Committee, Engineering Center, Campus Box 425, Boulder, CO, 80309-0425.

Organizing Committee. Scott Kirkpatrick, IBM Research, General Chairman; Richard Lippmann, MIT Lincoln Labs, Program Chairman; Kristina Johnson, University of Colorado, Treasurer; Stephen J. Hanson, Bellcore, Publicity Chairman; David S. Touretzky, Carnegie-Mellon, Publications Chairman; Kathie Hibbard, University of Colorado, Local Arrangements; Alex Waibel, Carnegie-Mellon, Workshop Chairman; Howard Wachtel, University of Colorado, Workshop Local Arrangements; Edward C. Posner, Caltech, IEEE Liaison; James Bower, Caltech, Neurosciences Liaison; Larry Jackel, AT&T Bell Labs, APS Liaison.

2. International Workshop on Analogical and Inductive Inference

October 1–6, 1989
Reinhardsbrunn Castle
German Democratic Republic

AII89 is the second workshop in the AII series started with AII86 (see *Lecture Notes in Computer Science 265*). These workshops are focussed on all formal approaches to algorithmic learning, particularly emphasizing analogical reasoning and inductive inference. Here is a partial list of topics: recursion-theoretic inductive inference, approaches to machine learning, explanation-based learning, similarity-based learning, formalizing analogy concepts, analogical reasoning, inductive program synthesis, approaches relating different learning methods to each other.

The workshop is intended to offer opportunities for intensive and detailed discussions. It should especially stimulate new scientific contacts between scientists from Artificial Intelligence and from Theoretical Computer Science. Therefore, the number of participants will be restricted to about 60. There will be no parallel sessions. The program committee is preparing some panel discussions. The program committee includes: Klaus P. Jantke, Chairman (Leipzig, GDR), Setsuo Arikawa (Fukuoka, Japan), Jan M. Barzdin (Riga, USSR), Robert P. Daley (Pittsburgh, USA), Katharina Morik (West Berlin), Luc DeRaedt (Leuven, Belgium), Carl H. Smith (College Park, USA), Leslie G. Valiant (Cambridge, USA), Fritz Wysotzki (Berlin, GDR).

The members of the committee are inviting a number of distinguished scientists to give tutorials, surveys, or particularly interesting presentations.

The conference fee is DM 250 (M 250 for participants from socialist countries) including the conference dinner and a volume of the proceedings. It is planned to publish the proceedings with Springer-Verlag. The conference site is a beautiful old German castle in a hilly area called the Thuringian Forest. Lodging will be provided in the castle.

For further information, contact Prof. Dr. Klaus P. Jantke, Leipzig University of Technology, Dept. of Mathematics and Informatics, P.O. Box 66, 7030 Leipzig, German Democratic Republic.

3. Second International Symposium on Artificial Intelligence

October 23–27, 1989
Monterrey, N.L., Mexico
Sponsored by the ITESM in cooperation with the AAAI and the SMIA.

Papers presenting original research on fundamental advances in knowledge-based systems and applications are sought. Suggested paper topics include: knowledge acquisition, evaluating knowledge engineering tools, machine learning, knowledge representation, verification and validation of expert systems, constraint-directed reasoning, uncertainty management, natural language, truth maintenance systems, managing expert systems projects, future trends and impacts of knowledge-based systems technology, impact of knowledge-based systems in organizations, applications in manufacturing, finance, business, and medicine.

Persons wishing to submit a paper should send five copies of the paper or an extended abstract written in English to David Garza, Program Chairman, Centro de Investigacion en Informatica, ITESM, Suc. de Correos "J," C.P. 64849 Monterrey, N.L., Mexico. Telephone (83) 58-2000, ext. 5133. Email: ISAI@TECMTYVM.BITNET. Papers must be received by 30 May 1989. Authors will be notified of acceptance or rejection by 3 July 1989. The entire extended abstract should be at least 5 double-spaced pages and not exceed 4000 words or 10 double-spaced pages. Authors of accepted papers will be expected to present their work at the Symposium.