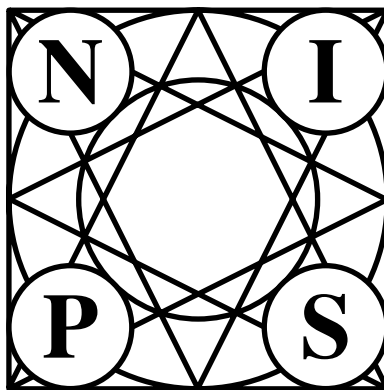


NIPS



2002

Sixteenth Annual Conference
on
Neural Information Processing Systems

Tutorials

December 9, 2002
Hyatt Regency
Vancouver, British Columbia, Canada

Conference Sessions

December 10-12, 2002
Hyatt Regency
Vancouver, British Columbia, Canada

Workshops

December 12-14, 2002
Westin Resort & Spa
Whistler, British Columbia, Canada

NIPS 2002 is sponsored by the Neural Information Processing Systems Foundation, Inc.

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Information about the Conference is available via the World Wide Web at:

<http://www.nips.cc>

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NIPS 2002

Sixteenth Annual Conference

on

Neural Information Processing Systems

You are invited to participate in the **Sixteenth Annual Conference on Neural Information Processing Systems**, which is the premier scientific meeting on neural computation. The Conference is extraordinarily interdisciplinary, with contributions from many intellectual communities united by an interest in the study of artificial and natural neural information processing. Interdisciplinary interactions are encouraged by having a single track of presentations and high-quality poster sessions. Presentation topics include learning algorithms and architectures, learning theory, neuroscience, cognitive science, vision, speech and signal processing, reinforcement learning and control, implementations, and diverse applications. All papers have been rigorously reviewed (with a 30% acceptance rate). The Conference is preceded by one day of tutorials and is followed by two days of workshop sessions in nearby Whistler, British Columbia, Canada.

The new **Demonstrations** component of the Conference program will enable researchers to highlight scientific advances, systems, and technologies in ways that go beyond conventional poster presentations. It will provide a unique forum for demonstrating advanced technologies — both hardware and software — and fostering the direct exchange of knowledge.

The **Tutorial Program** provides a choice of six two-hour tutorials by leading scientists. The topics span a wide range of subjects including neuroscience, learning algorithms and theory, bioinformatics, image processing and data mining.

The **Workshop Program** will include 15 workshops covering a wide range of topics from neuroscience to machine learning. The workshop schedule allows time for informal discussions, skiing and other winter sports.

Program Events

Tutorials:

Monday, December 9

- 8:00 am – 6:00 pm Registration
- 9:30 am – 5:30 pm Tutorials
- 7:00 pm – 10:00 pm Conference Banquet

Conference:

Tuesday, December 10 & Wednesday, December 11

- 8:00 am – 6:00 pm Registration
- 8:30 am – 12:00 pm Sessions
- 2:00 pm – 5:30 pm Sessions
- 1:00 pm – 6:00 pm Poster Setup and Preview
- 7:30 pm – 10:30 pm Poster Session and Demonstration Sessions

Thursday, December 12

- 8:30 am – 12:00 pm Sessions
- 2:00 pm – 3:30 pm Buses Depart for Workshops

Workshops:

Thursday, December 12

- 6:30 pm – 8:30 pm Welcoming Reception and Registration

Friday, December 13

- 7:00 am – 11:00 am Registration
- 7:30 am – 10:30 am Workshop Sessions
- 4:00 pm – 7:00 pm Workshop Sessions

Saturday, December 14

- 7:30 am – 10:30 am Workshop Sessions
- 4:00 pm – 7:00 pm Workshop Sessions
- 7:30 pm – 10:30 pm Banquet and Wrap Up

Program Highlights

Tutorials — Monday, December 9, 2002

Session 1: 9:30 – 11:30 am

Michael Kearns, University of Pennsylvania
Computational Game Theory

Sebastian Seung, Howard Hughes Medical Institute and MIT
Neural Integrators

Session 2: 1:00 – 3:00 pm

Yair Weiss, Hebrew University
Serge Belongie, University of California, San Diego
Jianbo Shi, Carnegie Mellon University

Eigenvector Methods for Clustering and Image Segmentation

Richard M. Karp, University of California, Berkeley and the International Computer Science Institute
Mathematical, Statistical, and Algorithmic Challenges from Genomics and Molecular Biology

Session 3: 3:30 – 5:30 pm

Martin Cooke, University of Sheffield
Computational Auditory Scene Analysis in Listeners and Machines

Andrew McCallum, University of Massachusetts at Amherst
William Cohen, Carnegie Mellon University
Information Extraction from the World Wide Web

Tutorial Abstracts may be found on pages 4 through 6.

Conference Sessions — Tuesday, Wednesday, Thursday, December 10-12, 2002

Almost 700 technical papers have been submitted for the 2002 conference. Each paper will be reviewed by three or more referees. We anticipate that approximately twenty-five papers will be accepted for oral presentation, and an additional 170 papers for poster presentation. All accepted papers will appear in the proceedings, which will be available online, on CD-ROM, and as a book from MIT Press. The CD-ROM version will be distributed to everyone who registers for the conference. The MIT Press book **must be ordered separately** on the registration form on page 10 or on the NIPS 2002 website: <http://www.nips.cc>

Invited Speakers

Hugh Durrant-Whyte, University of Sydney
Information Flow in Sensor Networks

Paul Glimcher, New York University
Decisions, Uncertainty and the Brain: Neuroeconomics

Deborah Gordon, Stanford University
Ants at Work

David Heeger, Stanford University
Neural Correlates of Perception and Attention

Andrew W. Moore, Carnegie Mellon University
Statistical Data Mining

Pietro Perona, California Institute of Technology
Learning Visual Categories

Workshop Sessions — Friday and Saturday, December 13 and 14, 2002

NIPS Workshops provide multi-track intensive sessions on topics ranging from computational learning theory to experimental neuroscience. The venue and schedule facilitate interaction, informality, and depth.

The workshops will be held at the Westin Resort & Spa in Whistler, British Columbia, Canada. The workshop sessions will end with a banquet on Saturday evening, December 14, 2002.

Scheduled Workshops

Beyond Classification and Regression

Bioinformatics

Functional Neuroimaging

Independent Component Analysis

Inference in Bayes Nets with Cycles

Learning Invariant Representations

Multi-Agent Learning

Negative Results

Neuromorphic Engineering

On Learning Kernels

Quantum Neural Computing

Reinforcement Learning and Planning

Spectral Methods

Spike-time Dependent Synaptic Plasticity

Statistics for Computational Experiments

Universal Learning Algorithms

Unreal Data

Additional information on scheduled workshops can be found on the NIPS 2002 website: <http://www.nips.cc>

Instructions for Poster and Demonstration Presentation

Posters and Demonstrations will be on view from 7:30 to 10:30 pm on Tuesday, December 10, and Wednesday, December 11, 2002. You should set up your poster or demonstration during the period from 1:00 to 6:00 pm on the day of your poster presentation. Posters will be assigned numbers (e.g. AA34). These numbers will be attached to the individual display boards in the Poster Presentation Room. You should find the display board corresponding to your number and attach your poster there. Poster pins will be provided.

Each poster presentation will occupy a 4 foot x 8 foot surface area. Plan your poster to fit this space. Identify your poster near the top of the panel with title and name(s) of investigator(s). All typefaces and graphics on the poster should be large enough to be read comfortably from distances of four to five feet. A well-designed poster clearly states the main problem and contribution and guides the viewer through the presentation. Hardcopies of viewgraphs do not make a good poster. A matte finish on your poster materials will give better visibility under the glare from lights. You may want to have copies of your paper or poster, along with other material to give to viewers.

Tuesday night posters must be removed by 9:00 am on Wednesday morning. Wednesday night posters must be removed by 9:00 am on Thursday morning.

Tutorial Abstracts

Session 1 — 9:30 – 11:30 am

Michael Kearns, University of Pennsylvania

Computational Game Theory

Recently there has been renewed interest in game theory in several research disciplines, with its uses ranging from the modeling of evolution to the design of distributed protocols. In the AI community, game theory is emerging as the dominant formalism for studying strategic and cooperative interaction in multi-agent systems. Classical work provides rich mathematical foundations and equilibrium concepts, but relatively little in the way of computational and representational insights that would allow game theory to scale up to large, complex systems. The rapidly emerging field of computational game theory is addressing such algorithmic issues, and this tutorial will provide a survey of developments so far. As the NIPS community is well-poised to make significant contributions to this area, special emphasis will be placed on connections to more familiar topics.

Topics to be covered include:

- Basics of classical game theory: zero- and general-sum matrix games
- Nash equilibria, minimax and fixed point arguments, linear programming
- Alternative equilibrium concepts: correlated equilibria, cooperative games and bargaining
- Evolutionary game theory
- Compact graphical representations of multi-player games, with connections to probabilistic inference in graphical models
- Multi-stage and stochastic games, with connections to reinforcement learning
- Learning in games: fictitious play, gradient algorithms, exponential update methods, with connections to machine learning
- Sampling arguments in game theory
- Game theory and distributed algorithms.

The tutorial will be self-contained, assuming no prior knowledge of game theory.

Michael Kearns is a professor in the Computer and Information Science department at the University of Pennsylvania, and co-director of Penn's Institute for Research in Cognitive Science. His research interests include probabilistic models and algorithms in artificial intelligence, computational game theory, computational learning theory, and related topics. Prior to joining the Penn faculty, Kearns spent a decade in basic research at AT&T/Bell Labs, where he headed the Artificial Intelligence (AI) and Machine Learning (ML) Research Department. He has published widely in AI and ML, and is co-author of "An Introduction to Computational Learning Theory" (with U. Vazirani, MIT Press 1994).

Web page: <http://www.cis.upenn.edu/~mkearns/>

Sebastian Seung, Howard Hughes Medical Institute and Brain and Cognitive Sciences Department, MIT

Neural Integrators

Newton and Leibniz taught us how to integrate, and then argued over who should get the credit. Little did they know they had been scooped. Even when unschooled in calculus, the brains of humans and other animals naturally carry out the mathematical operation of integration with respect to time. This capability evolved because temporal integration is important for certain behaviors, such as motor control and navigation. Researchers have identified particular brain areas that function as neural integrators. A physiological explanation of how neurons integrate is still lacking, although a number of hypotheses have been proposed. Integration can be regarded as the simplest form of working memory, the ability to store information and actively manipulate it to perform computations. Therefore, understanding how neurons integrate could shed light on how working memory is implemented by the brain.

Sebastian Seung is Assistant Investigator of the Howard Hughes Medical Institute and Robert A. Swanson Career Development Professor in Life Sciences in the Department of Brain and Cognitive Sciences and the Department of Physics at the Massachusetts Institute of Technology. He studied theoretical physics with David Nelson at Harvard University and completed postdoctoral training with Haim Sompolinsky at the Hebrew University of Jerusalem. Before joining the M.I.T. faculty, he was a member of the Theoretical Physics Department at Bell Laboratories. He is a Sloan Research Fellow, a Packard Fellow, and a McKnight Scholar.

Web page: <http://hebb.mit.edu/people/seung/>

Tutorial Abstracts

Session 2 — 1:00 – 3:00 pm

Yair Weiss, Hebrew University; **Serge Belongie**, University of California, San Diego;

Jianbo Shi, Carnegie Mellon University

Eigenvector Methods for Clustering and Image Segmentation

Spectral methods are a general class of algorithms that approximate computationally hard problems via properties of the eigenspectrum. These methods have been used for graph partitioning for over 30 years and have more recently shown great promise in a range of applications including VLSI design and computer vision. The tutorial will cover the theory and practice of eigenvector methods for clustering and image segmentation. We will discuss the general theory of spectral methods as well as particular issues that arise when dealing with images: e.g. calculating affinity matrices from pixels and efficiently computing eigenvectors in spaces with a million dimensions.

Yair Weiss is a senior lecturer at the Hebrew University School of Computer Science and Engineering. He received his PhD from the Massachusetts Institute of Technology and was a visiting scientist at UC Berkeley. His research interests include human and machine vision, machine learning and error correcting codes.

Serge Belongie is an assistant professor in the Department of Computer Science and Engineering at UC San Diego. He received his BS in Electrical Engineering from Caltech in 1995 and his PhD in Electrical Engineering and Computer Sciences (EECS) from UC Berkeley in 2000. He is a co-founder of Digital Persona, Inc., and the principal architect of the Digital Persona fingerprint recognition algorithm. His research interests include computer vision, pattern recognition, and digital signal processing.

Jianbo Shi was born in Shanghai, China. He received his BA in Computer Science and Mathematics from Cornell in 1994 and his PhD in Computer Science from UC Berkeley in 1998. In 1999, he joined the research faculty of the Robotics Institute at Carnegie Mellon University, where he is currently the joint PI and joint head of the HumanID project. Starting January 2003, he will be an assistant professor in the Department of Computer and Information Science at the University of Pennsylvania. His current research interests include topics in image segmentation, object recognition, and human identification-activity inference. He has also conducted research in motion tracking, 3D reconstruction, image retrieval, and humanoid robotics.

Web pages: <http://www.cs.huji.ac.il/~yweiss/> <http://charlotte.ucsd.edu/~sjb/> <http://www.cs.cmu.edu/~jshi/>

Richard M. Karp, University of California, Berkeley and International Computer Science Institute

Mathematical Statistical and Algorithmic Challenges from Geonomics and Molecular Biology

A fundamental goal of biology is to understand life at the level of genes, proteins and cells. Molecular biology and genetics are undergoing revolutionary changes. Emphasis has shifted from the study of individual genes and proteins to the exploration of the entire genome of an organism and the study of networks of genes and proteins. As the level of aspiration rises and the amount of available data grows by orders of magnitude, the field becomes increasingly dependent on mathematical and statistical modeling, mathematical analysis and computation. We shall give an introduction to the mathematical and computational challenges that arise in this field, with an emphasis on discrete algorithms and the role of combinatorics, optimization, probability, statistics, pattern recognition and machine learning. Specific topics to be covered will be drawn from the following list: alignment and comparison of biological sequences; sequence assembly algorithms; the use of Hidden Markov Models (HMMs) to describe sequence families; gene finding using HMMs, pair HMMs and whole-genome alignment; discovery of protein binding sites using the EM algorithm; phylogeny construction using parsimony methods, distance-based methods and maximum likelihood methods; combinatorics of genome rearrangement; unsupervised analysis of gene expression data using feature selection, clustering and two-dimensional clustering; supervised analysis of gene expression data using support vector machines. No prior knowledge of molecular biology will be assumed.

Richard M. Karp is a University Professor at UC Berkeley with appointments in Computer Science, Mathematics, and Bioengineering. His past work has focused on the reducibility of combinatorial problems, the probabilistic analysis of combinatorial optimization algorithms, and the construction of randomized algorithms for combinatorial problems. His current activities center around algorithmic methods in genomics and computer networking. Karp has received the U.S. National Medal of Science, the Turing Award, the Fulkerson Prize, the Harvey Prize (Technion), the Centennial Medal (Harvard), the Lanchester Prize, the Von Neumann Theory Prize, the Von Neumann Lectureship, the Distinguished Teaching Award (Berkeley), and the Babbage Prize. He is a member of the U.S. National Academies of Sciences and Engineering and a Fellow of the American Academy of Arts and Sciences, the American Association for the Advancement of Science and the Association for Computing Machinery.

Web page: <http://www.cs.berkeley.edu/~karp/>

Tutorial Abstracts

Session 3 — 3:30 – 5:30 pm

Martin Cooke, University of Sheffield

Computational Auditory Scene Analysis in Listeners and Machines

How do listeners recover information about individual sound sources from the acoustic melange reaching the ears? From musical ensembles to conversations in noisy settings, everyday listening situations present a significant challenge to our auditory systems and recognition algorithms alike. Cues such as pitch and location are prime candidates for source separation approaches, but prior expectations also have a role. Armed with a variety of audio demonstrations, this tutorial will explore the perceptual organization of sound from the perspective of auditory physiology, psychophysics and computational modeling. Topics to be covered include neurally-inspired models for the extraction of useful signal features, architectures for feature-binding and missing-data approaches to robust automatic speech recognition. The tutorial will also look in detail at the theory and practice of a recent probabilistic decoder which integrates bottom-up and top-down processes in computational auditory scene analysis.

Martin Cooke, after a spell at the UK National Physical Laboratory, obtained his PhD in 1991 and is currently Reader in Computer Science at the University of Sheffield. His interests lie in speech perception, computational auditory scene analysis, robust automatic speech recognition and educational tools for speech, hearing and phonetics. He is the author of *Modelling Auditory Processing and Organization* (Cambridge) and co-edited *Visual Representations of Speech Signals* (Wiley).

Web page: <http://www.dcs.shef.ac.uk/~martin/>

Andrew McCallum, University of Massachusetts, Amherst and **William Cohen**, Carnegie Mellon University

Information Extraction from the World Wide Web

The Web is the world's largest knowledge base. However, its data is in a form intended for human reading, not manipulation, data mining and reasoning by computers. Information extraction is the process of filling fields in a database by automatically extracting sub-sequences of human readable text. Today's search engines return web pages. Tomorrow's search engines will use information extraction to return "things" (like people, jobs, companies, events), their relations, facts and trends. This tutorial will survey many of the sub-problems and methods of information extraction, including use of sliding-window and finite state machines, language and formatting features, generative and conditional models, rule-learning and Bayesian techniques. We will also discuss some related issues, such as association of data fields into records, reference matching and de-duplication. A familiarity with statistical learning techniques, such as maximum likelihood estimation, Bayesian networks, and hidden Markov models, is recommended.

Andrew McCallum is a Research Associate Professor at University of Massachusetts, Amherst. He was previously Vice President of Research and Development at WhizBang Labs, a company that used machine learning for information extraction from the World Wide Web. In the late 1990s, he was a Research Coordinator at Justsystem Pittsburgh Research Center. He received his PhD in Computer Science from the University of Rochester in 1995 and was a post-doctoral fellow at Carnegie Mellon University in 1996. He is on the editorial board of the Journal of Machine Learning Research and has co-organized numerous technical workshops. For the past seven years, McCallum has been active in research on statistical machine learning applied to text, especially information extraction, document classification, finite state models, and learning from combinations of labeled and unlabeled data.

William Cohen received his bachelor's degree in Computer Science from Duke University in 1984 and his PhD in Computer Science from Rutgers University in 1990. From 1990 to 2000, Cohen worked at AT&T Labs-Research, then later at Whizbang Labs, a company specializing in information extraction from the World Wide Web. Cohen is currently an action editor for the Journal of Machine Learning Research and previously served as an editor for the journal Machine Learning and the Journal of Artificial Intelligence Research. He co-organized the 1994 International Machine Learning Conference and has served on more than 20 program or advisory committees. His research interests include information integration and machine learning, particularly text categorization and learning from large datasets.

Web pages: <http://www.cs.cmu.edu/~mccallum/> <http://www.wcohen.com/>

Hotels

Please note that all hotel rates are listed in Canadian dollars. The approximate rate in US dollars is indicated in parentheses. The conversion rate at the time of the preparation of this brochure: 1.55188. Local taxes of 17% will be added to all quoted hotel rates.

When making your hotel reservations, be sure to mention that you are a member of the NIPS 2002 participant to receive the special group rate.

Hyatt Regency Vancouver - Conference and Tutorials

The Conference and Tutorials will be held at the Hyatt Regency Vancouver. The hotel is located in downtown Vancouver, overlooking a mountain-rimmed harbor. For accommodations at the Hyatt Regency contact:

Hyatt Regency Vancouver 655 Burrard Street Vancouver, British Columbia, Canada V6C 2R7	Reservation Line 1-604-639-4820 Reservation Fax 1-604-639-4829 Hotel Main Number 1-604-683-1234	Single/Double/Triple \$135 (~\$86 US) Quadruple Occupancy \$160 (~\$103 US) Daily Parking Fee \$18.50 (~\$12 US)
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Maximum room occupancy is four persons. A credit card or one night's room and tax pre-payment is needed to guarantee room reservations. The hotel has a 24-hour cancellation policy. An early departure fee of one night's room and tax will be assessed if hotel is given less than 24-hours notice. **Rooms will be held at the special NIPS 2002 rate until November 8, 2002.** Beyond this date, the special rate is subject to space availability.

Westin Resort & Spa Whistler - Workshops

The NIPS 2002 Post-Conference Workshops will be held at the Westin Resort & Spa which is located at 4090 Whistler Way at the base of Whistler Mountain. It is adjacent to both the Blackcomb and Whistler gondolas that take skiers, snowboarders, and hikers to the top of the mountain.

For accommodations at the Westin contact:

Westin Resort & Spa 4090 Whistler Way Whistler, British Columbia, Canada V0N 1B4	Reservation Line 1-888-634-5588 Central Reservation 1-800-228-3000 Reservation Fax 1-604-905-5640 Main Hotel Number 1-604-905-5000 Main Hotel Toll Free 1-888-634-5577 Email reservations@westinwhistler.com Website http://www.westinwhistler.com	Junior Suites \$159 (~\$103 US) One Bedroom Suites \$159 (~\$103 US) Daily Parking Fee \$21 (~\$14 US)
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Rates at the Westin Resort & Spa are per night for single or double occupancy. There will be an additional charge of \$30 (~\$19 US) for each additional person. **Rooms will be held for NIPS 2002 participants at the special rate until November 12, 2002.** After that date, reservations will be accepted on a space-availability basis only. There is no refund for early checkouts, late check-ins, or no-shows. A deposit equal to one nights stay will hold each reservation. Full prepayment will be due 30 days prior to arrival and is not refundable. Cancellations made 30 days or less prior to arrival are not refundable. Cancellations made more than 14 days after booking will forfeit the initial deposit.

A mandatory resort fee of \$15 (~\$10 US) per room per night resort will be charged. The fee will afford unlimited use of the spa and health club, fitness center, unlimited local phone calls, ski valet service, ski/snowboard storage and local shuttle service in and around Whistler Village.

Please note that the Westin Resort & Spa is a non-smoking facility. If you would like a room with a balcony for the purpose of smoking, this must be requested at the time of making the reservation.

Discount Lift Tickets, Ski Rentals and Lessons Whistler:

Lift tickets for NIPS 2002 participants will be available at a special group rate of: \$46 (~\$30 US) for a one-day ticket; \$91 (~\$58 US) for a two-day ticket; and \$134 (~\$86 US) for a three-day ticket. Rentals, retail items, sightseeing tickets, and lessons will also be available at discounts ranging from 5-10%. The special discount rates are available to NIPS 2002 group members (including guests and family). Information on where to purchase discount tickets will be available at the workshop registration desk.

Local Transportation Options

Vancouver International Airport is 13 miles from downtown Vancouver and the trip takes approximately 30 minutes, depending on traffic. It is possible to find a variety of means of transportation to downtown Vancouver just outside of both the domestic and international terminals. There is an AIRPORTER bus that leaves from these locations every 15 minutes. The cost for bus service is \$12 Canadian (~\$8 US) one way or \$18 (~\$12 US) roundtrip. You may phone for information or advance reservations at 1-604-273-8436. You may also take a taxi for approximately \$23-\$26 Canadian (~\$15-17 US) or a limo for \$34 (~\$22 US). Rental cars and vans are available from car rental agencies that have offices at the airport. Note: Since most means of transportation will accept either US or Canadian dollars or credit cards, participants should be prepared to offer one of these methods of payment for local transportation.

Driving Instructions:

Vancouver International Airport to Hyatt Regency: (Driving time: ~25-40 minutes)

Take Grant McConnachie Way over the Arthur Laing Bridge. Take the Granville Street Exit from bridge and continue straight down Granville Street (approximately 60 blocks). Turn left onto West 16th Avenue then turn right on Burrard Street. Continue down Burrard Street and over the Burrard Street Bridge. Continue on Burrard for approximately 8 blocks. You will see the Hyatt Regency Vancouver on the left. Pull into the front of the hotel and have your car valet parked or self-park.

Hyatt Regency Vancouver to Whistler: (Driving time: ~2-2.5 hours)

From the Hyatt Regency on Burrard, head South on Burrard and turn right (West) on Georgia and follow it through Stanley Park and over the Lions Gate Bridge. Exit west off/under the bridge and into West Vancouver. Turn right on Taylor Way at Park Royal Shopping Centre. Follow Taylor Way half-a-mile up the hill to the Highway 1 (Trans-Canada) overpass. Join Highway 1 Westbound until you reach the junction with Highway 99 (Sea-to-Sky Highway). Exit right onto Highway 99. Follow this route for just over 100 kilometers along scenic Howe Sound, past Squamish to Whistler.

International Airport to Whistler: (Driving time: ~2.5 hours)

Take Grant McConnachie Way (the main route out of the Vancouver International Airport) and over the Arthur Laing Bridge. Continue straight over the bridge, stay in the right hand lane, which connects to SW Marine Drive/Granville Street. Granville Street is a North-South connector leading to the heart of downtown. Once across the Granville Street Bridge, turn left onto Drake at the first set of lights. Turn right on Hornby Street and continue on Hornby until you reach Georgia Street. Turn left (West) on Georgia and follow it through Stanley Park and over the Lions Gate Bridge. Exit West off/under the bridge and into West Vancouver. Turn right on Taylor Way at Park Royal Shopping Centre. Follow Taylor Way half-a-mile up the hill to Highway 1 (Trans-Canada) overpass. Join Highway 1 Westbound until you reach the junction with Highway 99 (Sea-to-Sky Highway). Exit right on to Highway 99. Follow this route for just over 100 kilometers along scenic Howe Sound, past Squamish to Whistler.

Bus from Hyatt Regency Vancouver to Whistler:

Buses will be available to transport Conference participants from the Hyatt Regency Vancouver to Whistler. These buses will leave from the Hyatt Regency on Thursday, December 12. Tickets may be purchased in advance on the registration form on page 10 or at the Conference registration desk.

Return Transportation from Whistler:

Each participant must make individual arrangements for the return from Whistler to the Vancouver International Airport. Perimeter's Whistler Express picks up at the Westin Resort & Spa every 90 minutes beginning at 4:00 am and ending at 6:00 pm. The rate for NIPS 2002 participants is \$49 (~\$32 US). Reservations are required for this return service. Remember to identify yourself as a participant in the NIPS 2002 Conference to receive the special group rate. **Make reservations no later than 48 hours prior to departure time to reserve your space.**

Phones: 1-877-317-7788 from US and Canada (Toll Free)
604-266-5386 from Vancouver

1-604-905-0041 from Whistler
Email Reservations: res@perimeterbus.com

Registration

Registration for the Main Conference includes a Monday evening welcoming banquet, continental breakfasts on Tuesday, Wednesday, and Thursday morning, as well as a CD-ROM containing the NIPS 2002 Conference Proceedings. Workshop registration includes opening night reception, Saturday evening banquet, and two full breakfasts. Registration for tutorials and workshops is optional and requires payment of a separate fee. A continental breakfast will be provided for tutorial participants.

To register for NIPS 2002, please log on to the NIPS Conference website: <http://www.nips.cc>, or complete the registration form on the following page, and mail with full payment, or FAX to:

NIPS 2002 Registration
NIPS Foundation Office
c/o The Salk Institute - CNL
10010 N. Torrey Pines Road
La Jolla, CA 92037 USA

Fax: 1-858-587-0417
Email: nipsinfo@salk.edu

Payments made by mail will be accepted in the form of check or money order made payable to the Neural Information Processing Systems Conference or by credit card (VISA or Mastercard). Payments must be in US dollars. When registering on-line, credit card payments may be made via a secure link. Registration will not be accepted without payment. **Students will be asked to provide valid student identification at the NIPS 2002 registration desk.**

Wire Transfers: To be registered for the Conference we must receive your wire transfer to the Wells Fargo Bank no later than November 29, 2002. Please direct wire transfers to:

Wells Fargo Bank
P. O. Box 340214
Sacramento, CA 95834-0214 USA

International Wire Transfers:
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Cancellation Policy: Cancellations received by November 8 will receive a full refund. Cancellations between November 9 and November 29 (inclusive), will be subject to a \$100 (US) cancellation fee. No refund will be given for cancellations after November 29.

Financial Support

Very limited funding will be available to support the travel of young investigators, post-doctoral fellows, and graduate students in the form of Microsoft Travel Awards and Ben Wegbreit Travel Awards. Awards will be based on merit, and heavily weighted by need. Travel awards will be in the amount of \$400 (US) for travel from the US and within Canada and \$600 (US) for participants arriving from elsewhere. Recipients of awards will be notified toward the end of October. Conference registration is not covered by travel awards.

Applications for travel grants must be submitted via the NIPS Travel Grants form accessible through the Conference website. Deadline for submission is midnight, Friday, October 11, 2002. Late applications will not be accepted. Award recipients will be notified by email in early November. Travel award checks in US dollars will be available at the NIPS 2002 Conference registration desk. A copy of your airline ticket will be required to receive your travel award.

Volunteers: Graduate students interested in doing volunteer work at the meeting in exchange for a registration fee waiver should send email to Rajesh Rao (rao@cs.washington.edu). Only a limited number of openings are available.

Conference Proceedings

The NIPS 2002 Conference Proceedings, *Advances in Neural Information Processing Systems 15*, edited by Suzanna Becker, Sebastian Thrun, and Klaus Obermayer, will be available to Conference attendees in three different formats. First, the complete Proceedings will be available on-line through the NIPS website. Second, a CD-ROM version of the Proceedings will be mailed to each conference attendee in late Spring, 2003. Third, at their option, attendees may purchase the Proceedings in a two-volume soft-cover format for the special Conference rate of \$35 (US) by checking the appropriate box on the registration form. This special reduced rate is available only if the purchase is made before or during the Conference. After the Conference, copies of the hardcopy Proceedings may be obtained through:

MIT Press
Five Cambridge Center
Cambridge, MA 02142-1493

mitpress-orders@mit.edu
MIT Press orderline at 1-800-356-0343.

Every paper will be allotted up to eight pages in the Proceedings. Camera-ready copy will be due to the Publications Chair, Klaus Obermayer, in early January 2003. Authors of accepted papers will be informed of the precise due date at the Conference.

NIPS 2002 REGISTRATION FORM

We ask that you complete **every entry** on the registration form – fully and legibly – including a complete street and email address. This information will be used to update the NIPS database.

Note that there is a price reduction for registrations received by November 8, 2002. All prices on this page are in US dollars.

Name _____ Institution Name _____

Department _____

Street Address (required) _____

City _____ State _____ Zip/Postal Code _____

Country _____ Email _____ Phone _____ Fax _____

Registration Fees: (Registration will not be accepted without payment in US dollars)

Please check appropriate amounts:

Tutorials:

Regular \$200

Full-time students \$120

(I.D. will be required on-site)

Conference:

After November 8, 2002

Regular \$370 \$420

Full-time students \$230 \$260

(with I.D.)

Workshops:

After November 8, 2002

Regular \$270 \$310

Full-time students \$170 \$195

(with I.D.)

Bus from Vancouver to Whistler:

\$30 (Refundable only if paid by credit card)

Proceedings: Hardcopy (Two volumes, soft cover)

\$35 (Special reduced rate available only if purchased before or during the Conference)

Payment Method:

Enclosed is a check or money order in US dollars for \$ _____ made payable to the Neural Information Processing Systems Conference.

Bank wire transfer. (Wire transfers must be received by November 29)

You may charge my credit card in the amount of \$ _____

MASTERCARD VISA

Credit card number _____

Name of credit card holder _____

Expiration date _____

Signature _____

Information about the Conference is available via the World Wide Web at:

<http://www.nips.cc>
