PAST EXHIBITORS

Adaptive Solutions
AI Expert
Applied Logic
BehaveHeuristics
Cambridge University Press
Chaos
Conquest Software
Cortona
Future Wave
Fuziware
Harlequin
IAKE
Intellicorp
Intelligent Software Corp.
Lockeed
NeuralWare
New Wave Intelligent Business Systems
Systemsware
SMART-F$
Talarian
Two-Party System
Wall Street & Technology

Program Chair

Roy S. Freedman
Inductive Solutions

Program Committee

Chidanand Apte
IBM

Michael Benaroch
Syracuse University

John DeSaix
NASD

Rinaldo DiGiorgio
Sun Mircosystems

Don Dueweke
New York Stock Exchange

Susan Garavaglia
Dun & Bradstreet

Mike Gargano
Pace University

Arnold Gia-Shuh Jang
Springfield (Hong Kong)

Ypke Hiemstra
Vrije Universitei (Amsterdam)

Ken Kleinberg
Gartner Group

Bradford Leach
New York Mercantile Exchange

Yuval Lirov
Lehman Brothers

Joseph Mathai
Fidelity Investments

Ross Miller
General Electric

Dan Schutzer
Citibank

Stephen Slade
New York University
Stern School of Business

Kar Yan Tam
Hong Kong University of Science and Technology

Milton White
Datanamics, Inc.

Takahira Yamaguchi
Shizuoka University (Japan)

Non Profit
U.S. Postage
PAID
Permit No. 16
Pleasantville, N.Y.

International Association of Knowledge Engineers
973D Russell Avenue,
Gaithersburg, M.D. 20879

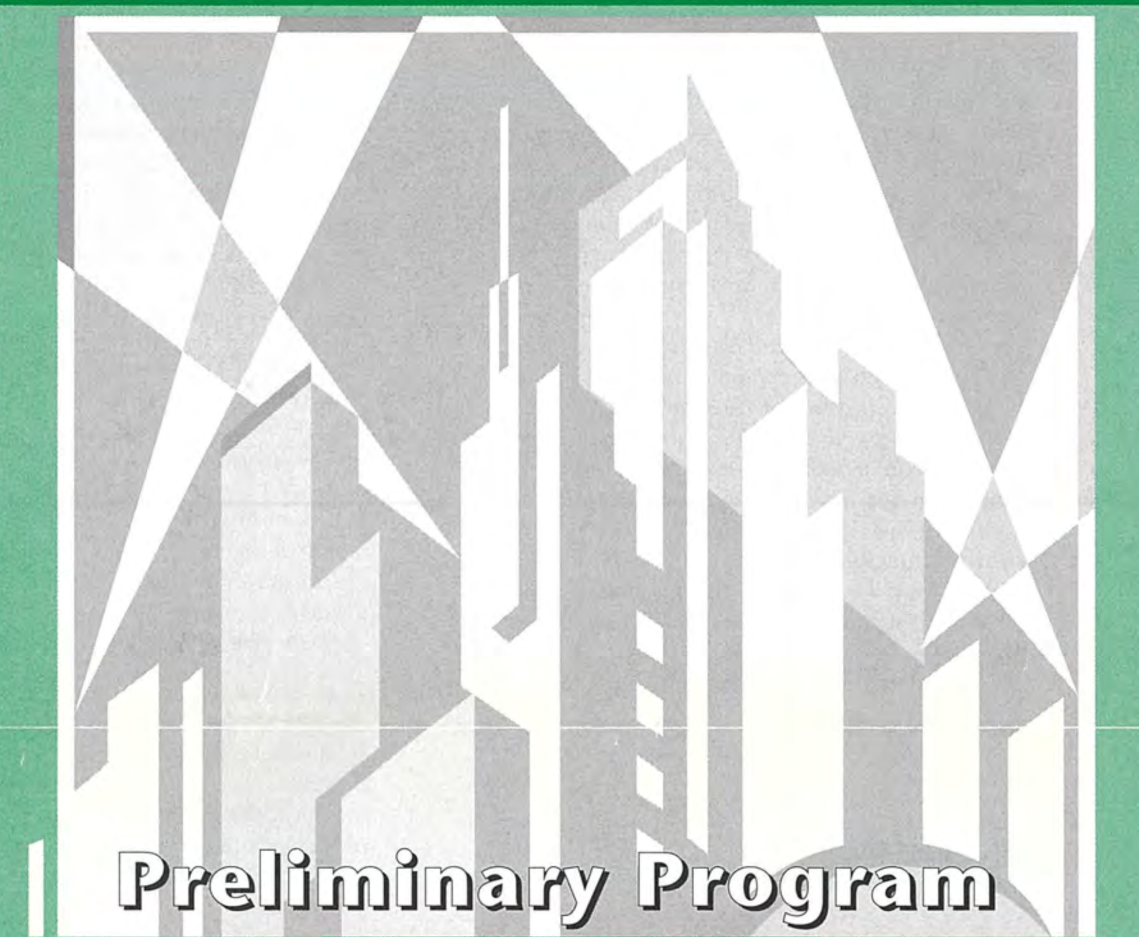
The Third International Conference on Artificial Intelligence Applications on Wall Street

June 6-9, 1995
Pace University
One Pace Plaza
New York City

Chaired by:
Roy S. Freedman
Inductive Solutions

Invited Speakers
Jeffry Borror, Lehman Brothers
Thomas Poggio, Artificial Intelligence Laboratory, MIT
David Leinweber, First Quadrant

The Third International Conference on Artificial Intelligence Applications on WALL STREET



June 6-9, 1995

Pace University
One Pace Plaza · New York City

Sponsored by
Pace University
School of Computer Science and Information Systems

Chaired by:
Roy S. Freedman, Inductive Solutions

Invited Speakers
Jeffry Borror, Lehman Brothers
Thomas Poggio, Artificial Intelligence Laboratory, MIT
David Leinweber, First Quadrant

In Cooperation with:
American Association for Artificial Intelligence (AAAI)
Association for Computing Machinery/SIGART (ACM/SIGART)
Society for the Management of AI Resources and Technology - Financial Services (SMART-F$)
International Association of Knowledge Engineers (IAKE)
Society for Quantitative Analysis (SQA)

Supporting Publications:
AI EXPERT • AI IN FINANCE • ANNALS OF MATHEMATICS AND AI • WALL STREET &TECHNOLOGY • STOCKS AND COMMODITIES

TUTORIAL PROGRAM

Tuesday, June 6, 1995

8:00 a.m. - 12 Noon

TU01 AI Applications on Wall Street: An Introduction to the Theory and Practice

Roy Freedman, Ph.D., Inductive Solutions

This tutorial is designed for the professional on Wall Street who would like to increase his/her competitive edge by introducing Artificial Intelligence techniques to applications. An "in-depth" introduction will be presented for applying rule-based systems, case-based systems, neural networks, and genetic algorithms to trading, prediction and allocation and market surveillance.

TU02 Financial Computation and Financial Behavior

Ross Miller, Ph.D., General Electric

This tutorial will give computer professionals an overview of the major quantitative financial theories, how they are incorporated into computational models, and the empirical research that examines how financial markets actually behave. The tutorial will use two of the best-known financial models as starting points, the Capital Asset Pricing Model and the Black-Scholes option pricing model, and point out the behavioral anomalies within these models and the computational approaches for getting beyond (or profiting from) them.

1:00 p.m. - 5:00 p.m.

TU03 Solutions to the Overfitting Problems in Networks

Andreas Weigend, Ph.D., University of Colorado at Boulder

This tutorial is designed for people who already have some knowledge about neural networks or other machine learning techniques. It discusses recent results in the field that actually are relevant for financial applications. Among the topics covered will be a discussion of the benefits of placing neural networks on a solid statistical basis, as well as a review of the up-to-date methods against overfitting.

TU04 Finance on the Information Superhighway

Ross Miller, Ph.D., General Electric

This tutorial will provide a practitioner's introduction to the financial resources available on the World Wide Web/Internet, particularly those that are freely available. Specifically, we will demonstrate how to access current and historical securities prices, risk assessment metrics, corporate financial statements, and emerging electronic markets. Tools and services for accessing the Web will also be presented.

TU05 Case-Based Reasoning and Multimedia

Stephen Slade, Ph.D.,New York University

This tutorial will introduce the key elements of Case-Based Reasoning (CBR) and Multimedia, and then focus on the areas of overlap. We shall pay particular attention to educational applications, including traditional training paradigms, as well as just-in-time training.

PRELIMINARY CONFERENCE PROGRAM

Wednesday, June 7, 1995

Start of Technical and Exhibit Program

8:00-9:00 REGISTRATION AND CONTINENTAL BREAKFAST

9:00-9:10 CONFERENCE WELCOME–Schimmel Auditorium
Roy S. Freedman, Inductive Solutions, Inc.

9:10-10:30 Invited Speaker: **The Complexity of Fixed Income Technology**
Jeffry Borror, Managing Director, Lehman Brothers

10:30-10:45 COFFEE BREAK

REGISTRATION FORM AI Wall Street '95

AI Wall Street '95, PACE University, One Pace Plaza, New York, NY

Please complete and return this form to: AI on Wall Street '95, Conference Registrar, IAKE, 973-D Russell Avenue, Gaithersburg, MD 20879. Tel: 1+301 948-5391 , Fax: 1+301 926-4243, Email: aiwall@datanamics.com (For more information or for registration by credit card) Registration fee made payable to Pace University must accompany this form. For additional registrants, please make photocopies of this form or call IAKE to have a registration package sent to you.

First name________ MI ______ Last name ________ Mr./Ms./Dr. ______
Organization ________ Title ________
Address ________ City ______ State ______
Zip ________ Country ________
Business Phone ______ Fax ______ Home Phone ______ E-Mail ______

Please Check All that Apply

A. Occupation

❑ Trader ❑ Broker/Sales ❑ Banker ❑ Research Analyst ❑ Portfolio Manager ❑ Risk Manager ❑ Back Office ❑ Consultant ❑ Research/Professor ❑ Executive ❑ Other______

B. Organization

❑ Trading ❑ Brokerage ❑ Banking ❑ Research ❑ Money Manager ❑ Insurance ❑ Consulting ❑ University ❑ Government Agency Other______

C. Employees at Work Site

❑ Less that 10 ❑ 10-25 ❑ 25-50 ❑ 50-100 ❑ 100-500 ❑ 500+

D. Areas of Expertise

❑ Finance ❑ Quantitative Methods ❑ Risk Management ❑ Technical Analysis ❑ AI ❑ Expert Systems ❑ Neural Networks Other______

E. Education

❑ BS/BA ❑ MS/MA ❑ MBA ❑ JD ❑ MD ❑ Ph.D.

AIA on Wall Street Registration includes admission to panel and paper sessions and entitlement to Conference Proceedings, (no Proceedings for one day technical program, or tutorial only registrants) as well as admissions to the exhibits, social events and coffee breaks. Tutorials are not included in Technical Program registration fees. The full Program & Tutorial fee does, however, include admission to one tutorial of your choice. If you wish to register for a specific Tutorial, please indicate your choice from the list below. Tutorials may be cancelled for insufficient registration and the tutorial fee refunded. **ONLY credit card, cash or government/institutional purchase orders will be accepted at the door.**

(AM) Tutorial 1 AI Applications on Wall Street: An Introduction to the Theory and Practice - Roy Freedman, Ph.D., Inductive Solutions
(AM) Tutorial 2 Financial Computation and Financial Behavior - Ross Miller, Ph.D., General Electric
(PM) Tutorial 3 Solutions to the Overfitting Problem in Networks - Andreas Weigend, Ph.D., University of Colorado at Boulder
(PM) Tutorial 4 Finance on the Information Superhighway - Ross Miller, Ph.D., General Electric
(PM) Tutorial 5 Case - Based Reasoning and Multimedia - Stephen Slade, Ph.D., New York University

REGISTRATION FEES

Please check appropriate categories	Early Registration (By May 5, 1995)		Registration (May 6, 1995 and onward)	
	Member*	Non-Member	Member*	Non-Member
Full Program and one half day Tutorial	❑ $565	❑ $695	❑ $665	❑ $795
Three Day Technical Program	❑ $425	❑ $575	❑ $525	❑ $675
Half-Day Tutorial	❑ $195	❑ $295	❑ $250	❑ $350
One Day Technical Program (no partial days or two day registrations special rates)	❑ $160	❑ $215	❑ $195	❑ $250

Tutorial - First Choice:______ Tutorial - Second Choice:______ Total Enclosed: $ ______
Check ❑ Visa ❑ MasterCard ❑ Name as shown on card: ______
Credit Card Number:______ Expiration Date: / /
Authorizing Signature:______

*Members of coorperating organizations: IAKE, AAAI, ACM/SIGART, SMART-F$, SQA.

Refunds: Refunds (less $50 processing fee) will be returned to participants if a written request reaches the Conference Registrar by May 15, 1995. No refunds will be made after this date. Make checks payable to Pace University. Circle membership and give membership number______.

LOCAL ARRANGEMENTS: The Marriott Hotels at (800) 242-8685 or (212) 266-6137 or Fax (212)-385-9174 are offering a special rate of $199 to conference attendees. (You must identify yourself as an attendee of this conference). Other hotels near the site (Pace University), are: Millennium (212) 693-2311, Vista (212) 938-9100, Holiday Inn (212) 966-8898. For Travel Arrangements Please call Hamad Travel (718) 291-2222.

Exhibit Information: For Exhibit Information, please contact Vorgie Sullivan (301) 948-5391, Fax (301) 926-4243, E-mail: aiwall@datanamics.com

FOR OFFICE USE ONLY

DATE RECEIVED______ RECEIVED BY______

How to reach the NEW YORK campus of Pace University

Please remember to use the Spruce Street entrance for Registration in the Shimmel Lobby.

By SUBWAY:

West Side IRT - Seventh Avenue Express **(Nos. 2 & 3)** to Park Place. Walk across City Hall Park to Pace University campus. **East Side IRT** - Lexington Avenue Express **(Nos. 4 & 5)** or **Local (No. 6)** to Brooklyn Bridge-Worth Street. Take exit marked City Hall to street...or walk through underpass to exit marked Frankfort Street.

Independent - **A train** (also **C** during weekday rush hours) to Broadway-Nassau Street Station. Exit at Fulton and Nassau Streets, and walk two blocks north to campus. **E train** to last stop–Chambers Street World Trade Center. Exit and walk one block east to Broadway and campus (opposite City Hall Park). **BMT**–Take local marked **R** or **N**. Stops at City Hall Station. Walk across City Hall Park to campus.

By PATH:

From Newark, Jersey City and Hoboken–ride **PATH Train** marked WTC (World Trade Center). From Church Street exit, walk one block east to Broadway...then two blocks north on Park Row (follows along City Hall Park) to campus.

By BUS:

#M1 to Spruce Street, #1 (marked South Ferry) from Fifth Avenue...lower Park Avenue...then along Broadway...to Park Place. Cross City Hall Park to campus. **#M6** (Broadway and Seventh Avenue) to Broadway and Park Place. Cross City Hall Park to campus. **#M9** to Chatham Square. Walk along Pearl Street to Frankfort, then one block west to campus. (Reade and West Broadway). Walk two blocks east to Broadway, cross City Hall Park to campus. **#M15** (marked Water Street, South Ferry) to Pearl & Frankfort Streets. (at campus). **#M22** to Chambers & Centre Streets–walk 2 blocks south to campus. **#M101** (marked Park Row-City Hall) to last stop. **#M102** (marked Park Row-City Hall) to last stop.

From Staten Island:

Take Staten Island Ferry to Manhattan. **BMT** (**R** or **N**) Train to City Hall Station. **IRT** (**Lexington Avenue Express**) to Brooklyn Bridge-Worth Street Station.

By Auto:

Three central arteries take you directly to the PACE University campus: FDR...West Street...Broadway. From the FDR or if crossing the Brooklyn Bridge from Brooklyn, keep to the right and exit at Pearl Street. Turn left on Pearl to Frankfort Street, then right to Bache Plaza and circle left to Gold Street. Campus is on your right.

PARKING

Two garages that will be open include a park and lock municipal garage located on Avenue of the Finest and Madison Street and a second garage conveniently located across from PACE on Gold Street just south of Spruce Street (approximately $10 for the day).

HOTEL ACCOMMODATIONS

Special rates of $199 per night* have been set aside at the Marriott Hotel, 85 West Street, New York, NY. Phone (212) 266-6137 fax (212) 385-9174

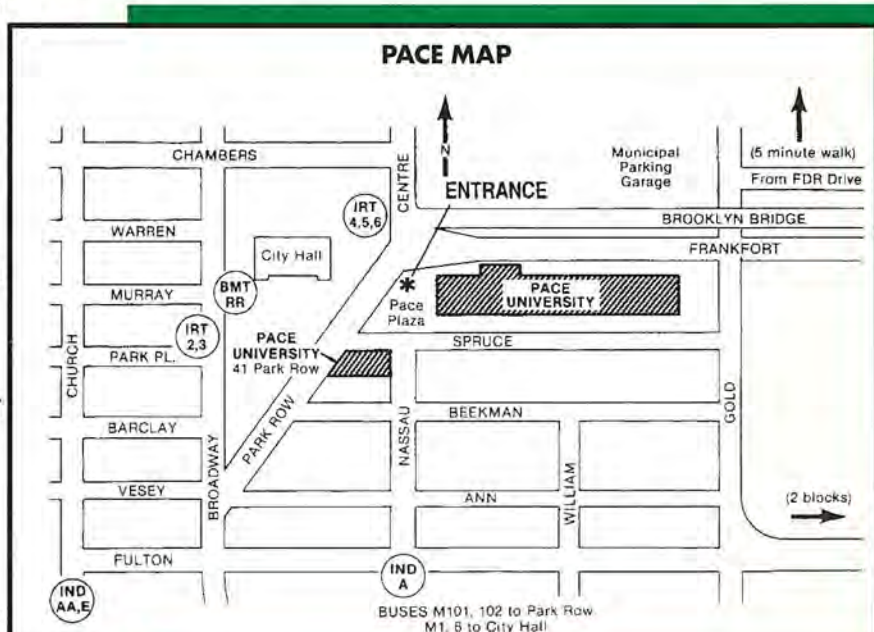
RESERVATIONS, CUT-OFF AND CHECK-IN

Individual (Call 800-242-8685 for reservations).

Cut-off Date:	May 16, 1995
Check-In Time:	4:00 p.m.
Check-Out Time:	11:00 a.m.

Please note that at the cut-off date the Hotel will release the unreserved rooms for general sale. Any reservation received after the cut-off date will be accepted on a space or rate available basis.

* You must specify that you are attending the AI on Wall Street Conference '95



10:45-12:15 PARALLEL SESSIONS

Paper Session: **Infrastructure Modeling**
Session Chair: *Rinaldo DiGiorgio, Sun Microsystems*

Oscar Yang, James Geller, and Yehoshua Perl, New Jersey Institute of Technology; Michael Halper, Kean College
Modeling Business Applications with the OODB Ownership Relationship

Bryan Knower, Michael Gargano and Frank Marchese, Pace University
An Application of Artificial Intelligence—Simulating The Business Environment

Peter Goldschmidt, The University of Western Australia
ALCOD: An IDSS for Stock Market Surveillance

Mikhail Lotvin, Pennie & Edmonds and Richard Nemes, Pace University
New Developments in Software Patent Protection

10:45-12:15 PARALLEL SESSIONS

Paper Session: **Advanced Forecasting Techniques**
Session Chair: *Kar Yan Tam, Hong Kong University of Science and Technology*

Hany Gobreial, The Aerospace Corporation
Multicriterial Associative Memory Approach for Nonlinear System Parameter Estimation

Eric W. Tyree and Alan Long, City University (London)
Forecasting Currency Exchange Rates: Neural Networks and the Random Walk

JaeHwa Choi, University of Michigan and Moon-Whoan Rhee, Towson State University
Trading S&P 500 Stock Index Futures Using a Neural Network

Andreas S. Weigend and Morgan Mangeas, University of Colorado
Using "Gated Experts" to Predict and to Discover Regimes

12:15-1:30 LUNCH

1:30-3:00	PANEL:	**Virtual Wall Street: Electronic Commerce and Public Networks**
		Chair: *Ross Miller, GE Corporate Research & Development*
		Steve Wunsch, Arizona Stock Exchange
		Evan Shulman, Lattice/CS First Boston
		TBD

3:00-3:30 COFFEE BREAK

3:30-5:00 PARALLEL SESSIONS

Paper Session: **Expert Systems and Hybrid Approaches**
Session Chair: *Stephen Slade, New York University*

Tim Chenoweth and Zoran Obradovic, Washington State University
A Multi-Component Approach to Stock Market Predictions

Mehdi R. Zargham, Southern Illinois University at Carbondale
An Expert System for Stock Selection

Oscar Castillo, Instituto Tecnologico De Tijuana; Patricia Melin, CETYS Tijuana
Intelligent Model Discovery for Financial Time Series Prediction Using Non-Linear Dynamical Systems Theory and Statistical Methods

Vasanthakumar N. Bhat, Pace University
How to Profit from Another Market Inefficiency

3:30-5:00 PARALLEL SESSIONS

Paper Session: **Risk Management**
Session Chair: *Susan Garavaglia, Dun & Bradstreet Information Services*

Ignacio Olmeda and Eugenio Fernandez, Universidad de Alcalá (Spain)
Optimal Mixtures of Classifiers for Financial Distress Prediction

Suzanne S. Shafik and Mohamed R. Hassan, Misr Insurance Center; Ahmed Rafea, Cairo University
An Expert System For Adjusting Marine Underwriting at Claim Point

Grigoris Karakoulas, National Research Council Canada
Cost Effective Classification for Credit Decision-Making

Sue Bynum, Robert Noble and Cheri Tod, GE Capital Mortgage Corporation; Ben Bloom, Inference Corporation
The GE Compliance Checker: A Generic Tool for Assessing Mortgage Loan Resale Requirements

6:00-8:00 CONFERENCE RECEPTION

Thursday, June 8, 1995

8:00-9:00 REGISTRATION AND CONTINENTAL BREAKFAST

9:00-9:10 CONFERENCE SUMMARY—Schimmel Auditorium
Roy S. Freedman, Inductive Solutions, Inc.

9:10-10:30 Invited Speaker: **Regularization Networks and Learning Option Pricing**
Thomas Poggio, Artificial Intelligence Laboratory, MIT

10:30-10:45 COFFEE BREAK

10:45-12:15 **PARALLEL SESSIONS**

Paper Session: **Data Analysis, Modeling, and Representation**
Session Chair: *Ypke Hiemstra, Vrije Universiteit Amsterdam*

Wray L. Buntine, Research Institute for Advanced Computer Science at NASA Ames Research Center and H. Scott Roy, Heuristicrats Research, Inc.
Software Analysis with Graphical Models

George K. Georgiou, Bon K. Sy, David B, Sher, Queens College and The Graduate School and University Center of the City University of New York
Summarizing Time Series Data for Optimizing the Settings of Technical Indicators

L. Gilardoni, P. Prunotto, and G. Rocca, QuinarySpA; F. Deotto and A. DiCresce, Euromobiliare S.I.M SpA (Italy)
A News Categorization System for Traders and Analysts

Theodore D. Raphael, Mystech Associates and John Varley, Nathan Associates
A Knowledge-Based System for Early Warning of Balance of Payments Crises in Emerging Market Countries

10:45-12:15 **PARALLEL SESSIONS**

Paper Session: **Optimization: Portfolios and Profit**
Session Chair: Ken Kleinberg, Gartner Group

Casimir C. Klimasauskas, NeuralWare, Inc.
Training Neural Networks to Predict Profit

William Edelson, Long Island University and Michael L. Gargano, Pace University
A Genetic Algorithm Approach to Optimizing Portfolio Merging Problems

San Mahfoud and Ganesh Mani, LBS Capital Management, Inc.
Genetic Algorithms for Predicting Individual Stock Performance

Burton Rosenberg, University of Miami
An Experiment in the Stability of Stock Statistics

12:15-1:30 LUNCH

1:30-3:00 **PARALLEL SESSIONS**

PANEL : **Intelligent Agents**
Chair: Rinaldo DiGiorgio,Sun Microsystems

David Spector
Stephen Dagler
TBD

1:30-3:00 **PARALLEL SESSIONS**

Paper Session: **Improving Neural Network Models**
Session Chair: *Gia-Shuh Jang, Springfield (Taiwan)*

Susan Garavaglia, Dun & Bradstreet Information Services
Neural Network Model Performance: Comparing Results in Photo Finish Situations

Ravi Krovi, Southern Arkansas University; B. Rajagopalan and Ned Kumar, University of Memphis; A. Chandra, North Carolina A&T University
Financial Classification: Performance of Neural Networks in Leptokurtotic Distributions

Patrick J. Lyons and Santanu Kar, St. John's University
Training Robust Neural Nets by Minimizing Weights—Not Errors

Andreas S. Weigend, University of Colorado; Hans Georg Zimmermann and Ralph Neuneier, Siemans
Ultra-Sparse Models Through Simultaneously Cleaning Data and Networks

3:00-3:30 COFFEE BREAK

3:30-5:00 **PARALLEL SESSIONS**

Paper Session: **Fundamental and Value Strategies**
Session Chair: *Mike Gargano, Pace University*

Ypke Hiemstra, Vrije Universiteit Amsterdam, and Christian Haefke, Institute for Advanced Studies (Vienna)
Predicting Quarterly Excess Returns: Two Multilayer Perceptron Training Strategies

James Markovitch, Dun and Bradstreet, Corp.
Automated Understanding of Financial Statements Using Neural Networks and Semantic Grammars

Steven Coy, Ravikumar Balasubramanian, Heshmat Beirjandi, Bruce L. Golden, and Ohseok Kwon, University of Maryland
Using Neural Networks to Predict the Degree of Underpricing of an Initial Public Offering

Walter Miller and David T. Cadden, Quinnipiac College
Bank Failure and Categorization—A Neural Network Approach

3:30-5:00 **PARALLEL SESSIONS**

Paper Session: **Derivatives**
Session Chair: *Michel Benaroch, Syracuse University*

Sergio Scandizzo, Laboratorio di Urbanistica e Pianificazione Territoriale Universitá Federico II di Napoli (Italy)
A Genetic-Based Approach to the Analysis of Derivative Securities

Paolo Tenti, A & A Financial Management (Switzerland)
Forecasting Currency Futures Using Recurrent Neural Networks

Evan Tick, University of Oregon
Designing Financial Swaps with CLP (R)

Roy S. Freedman, Inductive Solutions, Inc. and Rinaldo DiGiorgio, Sun Microsystems
Fast Cost-Effective Computations of Derivatives

Friday, June 9, 1995

8:00-9:00 REGISTRATION AND CONTINENTAL BREAKFAST

9:00-9:10 CONFERENCE SUMMARY—Schimmel Auditorium
Roy S. Freedman, Inductive Solutions, Inc.

9:10-10:30 Invited Speaker: **If You Had Everything Computationally, Where Would You Put it Financially?**
David Leinweber, First Quadrant

10:30-10:45 COFFEE BREAK

10:45-12:15 **PARALLEL SESSIONS**

PANEL : **Neural Networks: Report from the Traders**
Chair: Steven Armentrout, Neural Analytics

Ganesh Mani, LBS Capital Management;
David DeMers, The Prediction Company;
John Sweeny, Falcon Asset Management;
James O'Sullivan, OBIL
TBD

10:45-12:15 **PARALLEL SESSIONS**

Paper Session: **Trading Floor Support**
Session Chair: *Yuval Lirov, Lehman Brothers*

Dimitri Rotov, BFR Systems
Intelligent Help for Wall Street

Arash Baratloo, New York University; Partha Dasgupta, Arizona State University; Zvi M. Kedem, New York University
Calypso: A Reliable Parallel Processing Platform for High Volume Applications

Boris Grinfeld, Yuval Lirov, Andy Sherman, and Frank Wadelton, Lehman Brothers
Notification and Contact Management for Distributed Systems Support

Aaron Goldberg and Yuval Lirov, Lehman Brothers
Intelligent Batch Testing of Distributed Interactive Applications

12:30 End of Technical Program
3:00 End of Exhibit Program