XXI INTERNATIONAL SYMPOSIUM ON LEPTON AND PHOTON INTERACTIONS AT HIGH ENERGIES

EDITORS

HARRY W. K. CHEUNG
Fermi National Accelerator Laboratory, P. O. Box 500,
Batavia, IL 60510-0500, U.S.A.

TRACEY S. PRATT
Dept. of Physics, University of Liverpool, Oxford Street,
Liverpool, L69 7ZE, U.K.

LEPTON-PHOTON 2003

Proceedings of the 2003 International Symposium on Lepton and Photon Interactions at High Energy.
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Preface

The XXI International Symposium on Lepton and Photon Interactions at High Energies marked the return of the Symposium to Fermilab at the start of the Run II collider era of the Tevatron. As of 11-16th August 2003, the Tevatron has delivered an integrated luminosity surpassing that of the previous collider run. Whereas the IX Symposium, held at Fermilab in 1979, marked the start of construction of what was then called the "Energy Saver/Doubler", this one saw the newest accelerator at Fermilab – the Main Injector – in full operation for both protons and antiprotons. With the Main Injector the instantaneous luminosity of the Tevatron collider is a factor ~ 50 higher than the original design luminosity presented in 1979 for the "Energy Saver/Doubler". Soon to join the presently running MiniBooNE experiment will be a new neutrino program at Fermilab powered by the intense proton beams provided by the Main Injector. This summer saw the completion of the MINOS far detector and the NUMI neutrino beamline will soon be completed.

At the IX Symposium the first evidence for gluons was shown and QCD emerged as the theory that could describe what was known about hadrons. It was hoped that QCD would soon be near to gaining the stature of QED. At this Symposium a major breakthrough was presented. Lattice QCD has reached a new level of precision, where errors on calculated quantities can at last be reliably quantified at the several % level. Soon, instead of testing Lattice QCD we will be using it to help us determine more precisely the parameters of the Standard Model and to look for New Physics. Other highlights for this Symposium included the vast amount of new data from the B-factories with the tantalizing possibility of non-Standard Model CP-violation in ϕK_S^0, and the discovery of a new, as yet unexplained, particle, the $X(3872)$. The remarkable progress in neutrino physics was again evident with the last pieces of the solar neutrino problem falling into place and settling on the LMA-1 solution. However we were reminded how much we still need to understand by the talks on Dark Matter and Dark Energy. The talks also showed the synergy between the different areas of particle physics and between particle physics, astroparticle physics and cosmology, especially in the search for New Physics at the TeV energy scale.

While still following the traditional program of review talks, for this edition of the Symposium a real effort was made to increase active participation throughout the Symposium. This was partly achieved by holding breakout discussion sessions between the formal plenary talks. There, the speakers from several sessions were available for an extended "Question and Answer" session. These new sessions were enormously successful, and the only regret maybe is that we do not have a written record of these discussions. However this probably allowed for a more informal and relaxed atmosphere. Additional participation was also generated by another new introduction to the Symposium, a "Physics Posters" session. There were 66 physics posters presented with obvious enthusiasm by young physicists. These poster presentations were split over two days and included results from 20 different experiments as well as posters on theory, analytical techniques, and detector development. A "Laboratory Posters" day was again held with the participation of 15 laboratories, based in eight different countries. In addition, one evening was devoted to a special session on the Computational Data GRID, comprising an interesting program with both talks and posters.

Another aim for this Symposium was to increase the participation of younger scientists, who are the future of the field. As well as having some excellent young speakers and holding the new "Physics Posters" session, younger scientists were recruited to help throughout the Symposium. Included in this were the local organizing committee, the Scientific Secretaries, and one of the editors can still be considered young!

A major effort at this Symposium was public outreach. Members of the press held special discussion sessions with scientists on various physics topics; there was also a special press conference with the Laboratory Directors. The outreach effort included interaction with the public during several hours in the Field Museum in Chicago, which was covered by the press. There were also excellent "Plain English" articles written on seven different particle physics and cosmology topics made available via the Symposium website. At a public lecture on the last evening

of the Symposium, Fermilab director, Mike Witherell, gave an inspiring talk on "New Questions about Matter, Space and Time" to a packed auditorium of the local public. Capping off these outreach efforts was the launch of Interactions.org, a multinational website designed as a central resource for communicators of particle physics.

Following the excellent efforts of LP2001 on keeping a good record of the Symposium, we have tried to provide as good a record as possible via the website and through a DVDROM included with the hardcopy of the proceedings. These will provide a lasting record of the live webcast streaming video for each talk, the talk slides, the writeups of each talk, the public lecture, and the physics and laboratory posters.

The synergy between different areas of particle physics and cosmology that was so evident at LP2003 can be viewed as a broad attack to dispel the veil at the TeV energy scale. This effort will continue to pull at this veil and foreshadows the bursting forth of New Physics that will overwhelm, delight, excite, and inspire us. We hope that LP2005 will bring us a glimpse of this future era.

Harry W. K. Cheung
and
Tracey S. Pratt
Proceedings Editors

Acknowledgments

It is a pleasure to acknowledge the many people who made Lepton-Photon 2003 such a success. Keith Ellis and Joel Butler deserve special mention. They worked with enthusiasm to get Lepton-Photon 2003 hosted at Fermilab and then continued as key members of the Local Organizing Committee. Keith, with the Scientific Program Committee which he chaired, arranged a varied and interesting program. Joel, with his Special Events Committee, organized a full program of extra events, including a special session on the Computational Data Grid.

We thank the excellent Local Organizing Committee who worked very hard on all aspects of the Symposium, including the poster sessions, website, public outreach and contributed paper submission. Thanks to the International Advisory Committee for contributing useful suggestions on the program. The Scientific Secretaries are gratefully acknowledged for their many activities, including classifying all the contributed papers, providing technical help to speakers, and for their support during the sessions.

We thank the many Symposium speakers for their hard work and effort in producing excellent and engrossing reviews, and especially those speakers (almost everyone) who wrote up their talks for these Proceedings. We also thank the session chairs, many of whom also served as moderators in the experimental "breakout sessions". Special thanks go to Harry Cheung and Tracey Pratt for editing these Proceedings and getting them out promptly.

We thank Fred Ullrich and his staff and helpers from the Fermilab Visual Media Services for taking care of the streaming video, both the live webcast and archived version available from the conference website, the talk and poster presentation details, and for capturing the Symposium with a set of splendid photographs. Our thanks go to Judy Jackson, head of the Fermilab Office of Public Affairs, for organizing an extensive program for the press and laboratory public affairs personnel. We are pleased to acknowledge the financial support of Cisco Systems, Hamamatsu and Sun Microsystems. We thank the Illinois State Board of Higher Education /Illinois Consortium for Accelerator Research for their generous support of the poster session.

We received excellent support from Fermilab Director Michael Witherell and from staff in every Fermilab Division and Section. We particularly acknowledge the outstanding work of the Fermilab Conference Office. Cynthia Sazama, head of the Conference Office and a veteran conference organizer, coordinated a vast number of details, with assistance from Suzanne Weber, Patti Poole, and Harry Ferguson. Elaine Phillips (Particle Physics Division Administrative Support) was also particularly helpful.

Finally, for support that made this Symposium possible, our thanks go to the International Union of Pure and Applied Physics, the U. S. Department of Energy, the National Science Foundation, the Universities Research Association, OIST-Okinawa, NASA and of course Fermilab. The Fermi National Accelerator Laboratory is operated by the Universities Research Association, Inc., under contract DE-AC02-76CHO3000 with the U. S. Department of Energy.

C. Newman-Holmes
Chair, Lepton-Photon 2003 Organizing Committee

Editors' Acknowledgments

We would like to thank Cathy Newman-Holmes, Chair of LP2003, for giving us the opportunity and full responsibility for producing these proceedings. We made a special effort to try to publish these proceedings in the shortest possible time and we would like to thank all authors for delivering their contributions in a timely manner, while maintaining high standards in content and format. Regrettably a few contributions were not received. We also thank all authors for letting us try to improve the style, format

and the consistency of the whole volume – especially the U. K. authors for letting us change from British to U. S. spelling in their writeups!

We wish to thank the following people for helping out with the production of these proceedings. Jim Shultz and Fred Ullrich for help producing the DVDROM; Cynthia Sazama and Suzanne Weber for help with logistics; the Scientific Secretaries for help with the Discussion sections for each paper; Pushpa Bhat for help getting laboratory poster files; Fred Ullrich for help selecting photos for the cover and endpapers; Keith Ellis, Andreas Kronfeld and Chris Quigg for help trying to get writeup contributions; and the production staff at World Scientific – Karen Yeo, Jimmy Low and Rajesh Babu for producing the cover and for help with various production issues. TSP gratefully acknowledges support from the U. K. Particle Physics and Astronomy Research Council in the form of a PPARC Postdoctoral Fellowship.

Harry W. K. Cheung
and
Tracey S. Pratt

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Reidar Hahn Deborah Guzman Cindy Arnold Diana Canzone Karen Seifrid Fred Ullrich

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Descriptions of Cover and Endpaper Photos

Cover: Broken Symmetry

The tri-span sculpture, called "Broken Symmetry", rises 50 feet above the road at Fermilab's Pine Street entrance. It exemplifies the notions of symmetry and symmetry-breaking that are so important in the physics of elementary particles. Although asymmetric from most angles, when viewed from directly above or below the apex, the structure appears perfectly symmetric. This 21 ton "gateway" was constructed in 1978 from the steel armor plates of the U. S. Navy aircraft carrier, Princeton, which was decommissioned in May, 1956. The steel from this and other surplus decommissioned U. S. Navy battleships is used at Fermilab for radiation shielding.

Front Endpaper: Aerial View of the Fermilab Accelerator Complex

The large ring on the left in the aerial view of the Fermilab accelerator complex indicates the location of the Main Injector, Fermilab's newest accelerator. The larger four mile ring on the right shows the location of the Tevatron. Robert Rathbun Wilson Hall, the "Highrise", is clearly visible in the center. This is named after Fermilab's founding director.

Back Endpaper: View over Prairie, of Wilson Hall and Lederman Science Center

A look over an open tallgrass prairie which is part of Fermilab's Prairie Reconstruction Project. This is an effort to recreate some of the awesome beauty of the old prairies, as well as the biodiversity of native grassland ecosystems. Wilson Hall can be seen in the background on the right, and on the left is the Lederman Science Center, named after Nobel Laureate and former Fermilab Director, Leon M. Lederman. This visitor center is very popular with the public and surrounding schools for gaining hands-on experience to explore how Fermilab physicists understand nature's secrets.

WELCOME

WELCOMING REMARKS TO LEPTON PHOTON 2003 THE 21st INTERNATIONAL SYMPOSIUM ON LEPTON AND PHOTON INTERACTIONS AT HIGH ENERGIES

S. PETER ROSEN
Office of Science, U. S. Department of Energy
E-mail: Peter.Rosen@science.doe.gov

Ladies and Gentlemen, on behalf of the United States Department of Energy, Secretary Spencer Abraham and Director of the Office of Science, Raymond L. Orbach, it is my pleasure to welcome you to Fermilab and to Lepton-Photon 2003. Minasama, Fermilab narabini Lepton-Photon 2003 he Youkoso irassyaimashita. Meine Damen und Herren, willkommen zum Nationalen Fermi-Beschleuniger-Forschungszentrum. Mesdames et Messieurs, bienvenue au Laboratoire National d'Accélératures de Fermi. Signore e Signori, benvenuti al Laboratorio Nazionale Fermilab. Дамы и Господа, добро пожаловать в Fermilab. Damas y Caballeros, bienvenidos al Laboratorio Nacional Fermilab. Please forgive me if I have omitted your own language, but you are equally welcome.

I like to think of Fermilab as the home of the third family of quarks and leptons: the b quark was discovered here, and the first observations of the top quark and tau neutrino were made here. It is also the home of the Tevatron, presently the world's highest energy hadron collider and it will remain so until the LHC comes on-line in 2007. We all look forward to the first results from Run II to be presented at this meeting, and to the exciting physics it will produce in the next five years. The discoveries made here and the lessons learned about extracting physics from hadronic collisions at the current energy frontier will lay the groundwork for exciting and successful hadronic collision programs at the future energy frontier at the LHC. They may also provide hints about the physics we may encounter at a future linear electron-positron collider.

While allowing for the precautions which the United States Government believes to be necessary for security reasons, the spirit of Fermilab, like the spirits of its sister laboratories at Brookhaven and Stanford, and at high energy physics laboratories in Asia and Europe, is that of an international research center. You can see outside the main entrance to Wilson Hall the flags of all the nations from which physicists come to perform their experiments. About one half of the 1100 or so users at Fermilab are from foreign countries, and the same is true of the users at RHIC and at SLAC. We welcome this participation by our colleagues from abroad, just as we appreciate the welcome given to U. S. scientists at facilities in other parts of the world.

This international, or rather global nature of our field has grown strong roots in the world high energy physics community and it serves as a model for other scientific fields, especially those that require large, global-scale facilities. The high energy community has been a pioneer in the development of major facilities, for example super-scale detectors like CMS and ATLAS. The next steps that I believe it needs to pioneer are planning on a global scale, and the formation of a laboratory for the next frontier facility, which has to be global from its inception, through construction and into its operating phase.

Turning to the physics at this meeting, we look forward to the results to be extracted from the wealth of data accumulated by the B-factories at KEK and SLAC, something like 100 inverse femtobarns apiece. Will they reveal new sources of CP-violation beyond the Standard Model, or give hints of other new physics through precision measurements of exclusive decay modes? Neutrino physics has been extremely exciting in the past five years: what new insights will we learn about the number of neutrinos, the masses and mixing angles? What hints will we hear from the Tevatron about Supersymmetry and extra dimensions? Will new light shine on Dark Matter and Dark Energy? Obviously there is an abundance of exciting questions which will make for an exciting conference, and so with no more ado, I bid you welcome and good *physicking*!

ELECTROWEAK PHYSICS AND BEYOND

HIGGS AND SUPERSYMMETRY

M. SCHMITT
Northwestern University, 2145 Sheridan Road, Evanston, IL 60208, USA
E-mail: schmittm@lotus.phys.northwestern.edu

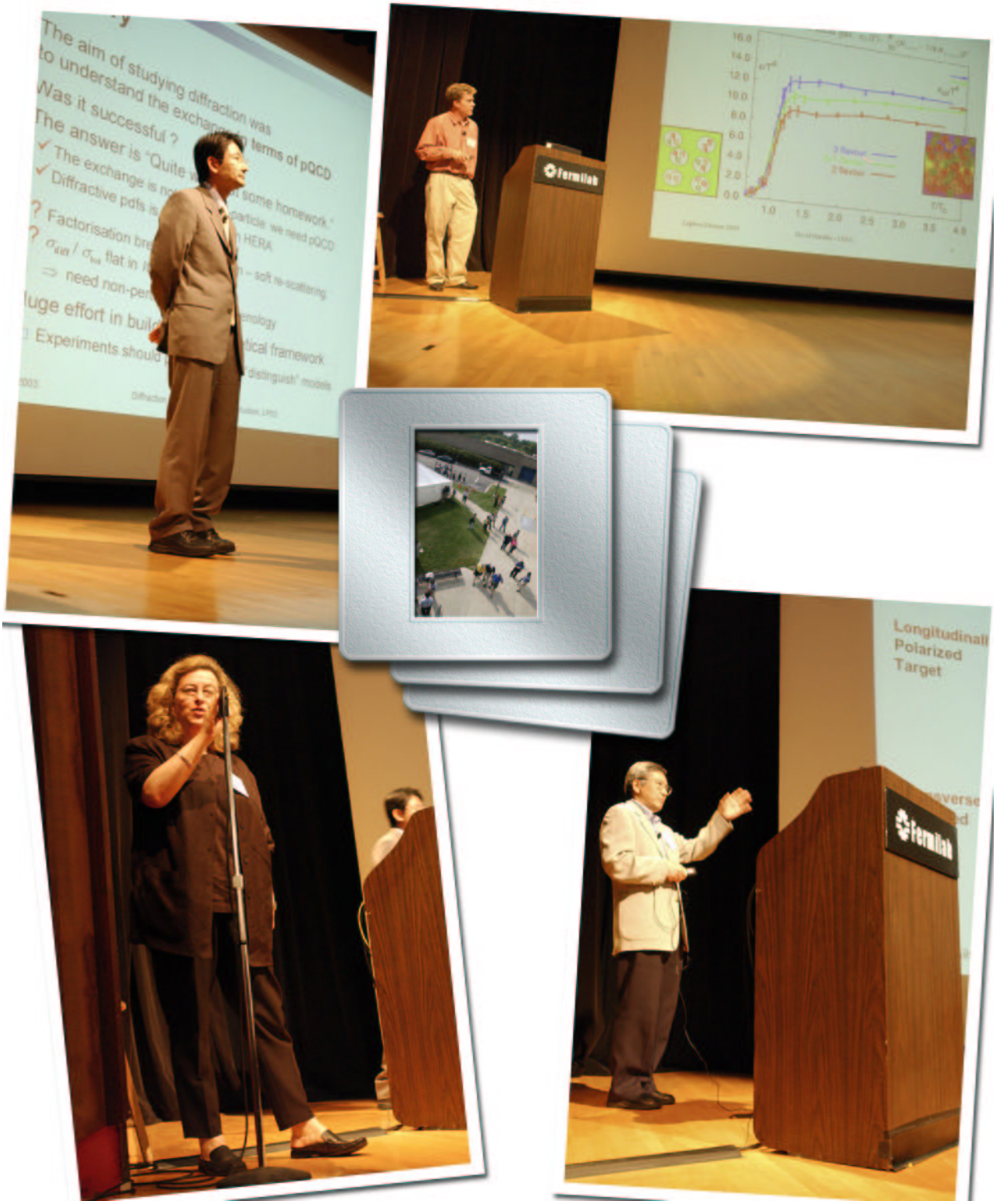
NO CONTRIBUTION RECEIVED

QCD PHENOMENOLOGY AND THEORY

FLAVOR PHYSICS: RARE AND BEYOND STANDARD MODEL DECAYS

FLAVOR PHYSICS: CKM AND QCD

HADRON STRUCTURE



COSMOLOGY AND ASTROPARTICLE PHYSICS

BRIGHT STARS, DARK ENERGY

R. KIRSHNER
Harvard-Smithsonian Center for Astrophysics, 60 Garden St., Cambridge, MA 02138, USA
E-mail: rkirshner@cfa.harvard.edu

NO CONTRIBUTION RECEIVED

NEUTRINO PHYSICS

NEUTRINO MASSES FROM DOUBLE-β DECAY AND KINEMATICS EXPERIMENTS

G. GRATTA
Stanford University, Dept. of Physics, Stanford, CA 94305, USA
E-mail: gratta@hep.stanford.edu

NO CONTRIBUTION RECEIVED

RESULTS AND STATUS OF CURRENT ACCELERATOR NEUTRINO EXPERIMENTS

K. NISHIKAWA
Kyoto University, Dept. of Physics, Kitashirakawa-Oiwakecho, Sakyo-ku, Kyoto 606-8502, Japan
E-mail: nishikaw@scphys.kyoto-u.ac.jp

NO CONTRIBUTION RECEIVED

FUTURE FACILITIES

FUTURE DIRECTIONS

Symposium Program

Monday 11th August 2003

OPENING REMARKS

8:30am Welcome
Michael Witherell, Director of Fermi National Accelerator Laboratory

8:35am Welcome
S. Peter Rosen, Office of Science, U. S. Department of Energy

Session 1 - COLLIDER AND ELECTROWEAK

Session Chair: Richard Keeler, Victoria

8:45am Top Quark Measurements at the Tevatron
Patrizia Azzi, Padova

9:20am Electroweak Measurements at the Tevatron
Terry Wyatt, University of Manchester

9:55am Precision Electroweak Physics from Low to High Energies
Paolo Gambino, CERN

Session 2 - COLLIDER SEARCHES

Session Chair: Rohini Godbole, Bangalore

11:00am Higgs and Supersymmetry
Michael Schmitt, Northwestern University

11:35am Exotic Searches at Colliders
Emmanuelle Perez, Saclay

12:10pm Theoretical Predictions for Collider Searches
Gian Giudice, CERN

Session 3 - QCD AND LATTICE

Session Chair: Dong-Sheng Du, Beijing, IHEP

2:15pm QCD Theoretical Developments
Thomas Gehrmann, Zurich

2:50pm Hard QCD at Colliders
Robert Hirosky, Virginia

3:25pm Lattice Gauge Theory
Peter Lepage, Cornell

Session 4 - RARE B AND K DECAYS

Session Chair: Robert Tschirhart, FNAL

4:30pm Rare Kaon Decay Physics
Augusto Ceccucci, CERN

5:15pm Beyond the Standard Model Sensitivity in K and B Physics
Yuval Grossman, Technion

Monday 11th August 2003

6:00pm Reception, Physics Poster Session, Jazz by Chicago Hot Six
8:00pm Special Session: Young Particle Physicists Town Meeting

Tuesday 12th August 2003

Session 5 - WEAK MIXING PHASES

Session Chair: Ikaros Bigi, Notre Dame

8:45am CKM Phases ($\boldsymbol{\beta/\phi_1}$)
Tom Browder, Hawaii
9:20am CKM Phases ($\boldsymbol{\alpha, \gamma/\phi_2, \phi_3}$)
Hassan Jawahery, Maryland
9:55am Mixings, Lifetimes, Spectroscopy and Production of B-quarks
Kevin Pitts, Illinois

Session 6 - CKM MAGNITUDES AND QCD OF HEAVY HADRON DECAYS

Session Chair: Michael Danilov, ITEP

11:00am CKM Matrix Element Magnitudes
Klaus Schubert, Dresden
11:45am QCD and Heavy Hadron Decays
Gerhard Buchalla, Munich

1:00–2:00pm **Informal Breakout Session I** Session 1 and 2 Moderator: Rohini Godbole, Bangalore
Session 3 Moderator: Kirill Melnikov, Hawaii

Session 7 - RARE DECAYS AND PENGUINS

Session Chair: Marina Artuso, Syracuse

2:15pm Rare Hadronic B Decays
John Fry, University of Liverpool
3:05pm Radiative and Electroweak Rare B Decays
Mikihiko Nakao, KEK

Session 8 - CHARM AND QUARKONIUM PHYSICS

Session Chair: Steve Olsen, Hawaii

4:30pm Experimental Limits on New Physics from Charm Decay
Bruce Yabsley, Virginia Tech
5:05pm Heavy Quarkonium, Production and Spectroscopy
Tomasz Skwarnicki, Syracuse
5:40pm Lessons from Standard Charm Decays
Jussara de Miranda, CBPF

Wednesday 13th August 2003 Free Day

6:30pm Reception, Crystal Garden, Navy Pier
7:30pm Banquet, Crystal Garden, Navy Pier

Thursday 14th August 2003

Session 9 - ASTROPARTICLE PHYSICS

Session Chair: Roberto Peccei, UCLA

8:45am Cosmic Microwave Background Experiments
Licia Verde, Princeton

9:20am Dark Matter and Energy
Robert Kirshner, Harvard

9:55am Astroparticle Theory
Esteban Roulet, Bariloche

Session 10 - NEUTRINO PHYSICS I

Session Chair: Stanley Wojcicki, Stanford

11:00am Dark Matter Experiments
Maryvonne de Jesus, Lyon

11:35am Double-Beta Decay and Tritium Decay Experiments
Giorgio Gratta, Stanford

12:10pm Results and Status of Current Accelerator Neutrino Experiments
Koichiro Nishikawa, Kyoto

1:00–2:00pm **Informal Breakout Session II** Session 4, 5, 6, 7 and 8 Moderator: Fred Gilman, CMU
Session 9 Moderator: Roberto Peccei, UCLA

Session 11 - NEUTRINO PHYSICS II

Session Chair: William Louis, LANL

2:15pm Reactor Neutrino Experiments
Kunio Inoue, Tohoku

3:00pm Solar Neutrino Experiments
Alain Bellerive, Carleton

Session 12 - NEUTRINO PHYSICS III

Session Chair: Enrique Fernandez, Barcelona

4:30pm Neutrino Physics: Open Theoretical Questions
Alexei Smirnov, Moscow and ICTP

5:15pm Future Experiments with Neutrino Superbeams, Betabeams and Factories
Deborah Harris, FNAL

Special Session - EXTREME COMPUTING: THE DATA GRID AND THE FUTURE OF DISTRIBUTED COMPUTING

Session Chairs: Vicky White and Ruth Pordes, FNAL

7:30pm Introduction and Overview of the Grid: Current Status of U. S. Grid R&D and Deployment
Ian Foster, Argonne and Chicago

8:00pm Grids in Europe and the LCG Project
Ian Bird, CERN, LCG

8:30pm Network Research Infrastructures: Back to the Future
Bob Aiken, Cisco

Thursday 14th August 2003

8:50pm Break
9:05pm All Grid, All the Time
Stephen Perrenod, SUN
9:25pm Grid Services and Web Services: Harmonic Convergence
David Martin, IBM
9:45pm TeraGrid and High-End Computing: Lessons and Futures
Daniel Reed, UIUC, NCSA, TeraGrid

Friday 15th August 2003

Session 13 - HADRON STRUCTURE I

Session Chair: Albrecht Wagner, DESY

8:45am Deep Inelastic Scattering
Paul Newman, University of Birmingham
9:20am Parton Distribution Function
Robert Thorne, Cambridge University
9:55am Measurements with Polarized Hadrons
Toshi-Aki Shibata, Tokyp Inst. Tech.

Session 14 - HADRON STRUCTURE II AND DETECTOR R&D

Session Chair: Halina Abramowicz, Tel Aviv

11:00am Diffraction and Vector Meson Production
Yuji Yamazaki, KEK
11:35am Heavy-Ion Collisions
David Hardtke, LBNL
12:10pm Detector R&D
Ties Behnke, DESY

Laboratory Poster Session/Fermilab Tours

1:30–4:30pm Fermilab Tours
2:15–6:00pm Lab Poster session

2:00–3:00pm **Informal Breakout Session III** Session 10, 11 and 12 Moderator: William Louis, LANL
Session 13 and 14 Moderator: Halina Abramowicz, Tel Aviv
3:00–4:00pm Detector R&D Moderator: Robert Kephart, FNAL

8:00pm Public lecture, "Windows on the Universe: New Questions about Matter, Space and Time"
Michael Witherell, FNAL

Saturday 16th August 2003

Session 15 - NEW ACCELERATORS

Session Chair: David Miller, UC, London

8:45am Report from the Young Physicists
Veronique Boisvert, CERN

9:00am LHC
Luciano Maiani, CERN

9:35am Physics of the Linear Collider
Francois Richard, Orsay

10:10am Report from the Chair of ICFA
Jonathan Dorfan, ICFA and SLAC

10:25am Report from the Chair of C11
Vera Luth, IUPAP-C11

Session 16 - FUTURE DIRECTIONS

Session Chair: Hirotaka Sugawara, KEK

11:00am Linear Collider Options: Status of the R&D and Plans for Technology Selection
Maury Tigner, ILCSC and Cornell

11:45am Supersymmetry and Other Scenarios
Edward Witten, IAS-Princeton

Session 17 - OUTLOOK

Session Chair: Cathy Newman-Holmes, FNAL

2:00pm Outlook: The Next Twenty Years
Hitoshi Murayama, UC, Berkeley

Physics Posters

Armstrong, Stephen *CERN*	The Physics Selection Strategy of the ATLAS High Level Trigger
Bachacou, Henri *University of California, Berkeley*	Measurement of the $t\bar{t}$ Production Cross Section at the Tevatron CDF Experiment using b-tagging
Black, Kevin *Boston University*	Design of the Silicon Track Trigger at D0
Bocian, Dariusz *Institute of Nuclear Physics, Cracow*	Luminosity Measurement with the Two-photon $pp \to pp + e^+e^-$ Process
Boisvert, Veronique *CERN*	Study of the q^2-dependence of $B \to \pi\ell\nu$ and $B \to \rho(\omega)\ell\nu$ Decays and Extraction of V_{ub}
Brubaker, Erik *University of California Berkeley*	Measurement of the Mass of the Top Quark at CDF using b-tagging in the Lepton + Jets Channel
Canelli, Florencia *and* Estrada, Juan *University of Rochester*	Optimal use of Information to Measure Top Properties
Chou, Aaron *Fermi National Accelerator Laboratory*	A New Algorithm for Computing the Aperture of the Auger Surface Detector
Coca, Mircea *University of Rochester*	Run II CDF Results in the $t\bar{t}$ Dilepton Channel
Del Re, Daniele *University of California, San Diego*	Measurements of Semileptonic B Decays with BABAR
Deryuzhkova, Oksana *Gomel State University*	Low-energy Electromagnetic Characteristics of π-mesons in the Covariant Lagrangian Approach
Dorjkhaidav, Orlokh *Syracuse University*	The BTeV Ring Imaging Cherenkov Detector
Erbacher, Robin *and* Thomson, Evelyn *FNAL* *Ohio State Univ.*	Kinematic Top Cross Section Measurement
Fang, Hung-Chung *University of California, Berkeley*	Study of Hadronic Moments in Semileptonic B Decays
Farbin, Amir *University of Maryland*	Measurements of Time dependent CP-asymmetries in Charmless Two-body B Meson Decays
Farrington, Sinéad M. *University of Glasgow*	Measurement of the B_s Lifetime from Semileptonic Decays: $B_s \to D_s\ell\nu X$
Feligioni, Lorenzo *and* Beauceron, Stephanie *Boston Univ.* *FNAL*	$Wb\bar{b}$ Production at the D0 Experiment
Formaggio, Joseph *University of Washington*	MOON: A Next Generation Double Beta Decay and Solar Neutrino Experiment
Fu, Shaohua *Columbia University*	Search for First Generation Leptoquarks in the Dielectron + Dijet Channel with the D0 Detector
Gao, Mingcheng *Columbia University*	Direct Search for Extra Neutral Gauge Bosons in the Dielectron Channel with the D0 Detector

Gerberich, Heather ..... Study of Dielectron + Photon Production at CDF in Run II
Duke University

Goldschmidt, Nathan ..... Measurement of the Helicity of W Bosons from Top Quark Decays at CDF
University of Michigan

Golling, Tobias ..... Measurement of the $t\bar{t}$ Production Cross Section Using Lifetime b-tagging with the D0 Detector
University of Bonn

Gomez-Ceballos, Guillelmo ..... W-pair Production Cross Section and W-branching Ratios at DELPHI
Massachusetts Institute of Technology

Groysman, Yuriy ..... Charmless B Decays
Lawrence Berkeley National Lab.

Hara, Koji ..... Time-dependent Analysis of B Decays at Belle
Osaka University

Hayward, Helen ..... Measurement of $Z + \gamma$ Production at CDF
University of Liverpool

Heeger, Karsten M. ..... Measuring θ_{13} in a Reactor Neutrino Oscillation Experiment
Lawrence Berkeley National Lab.

Howcroft, Caius ..... Atmospheric Neutrinos at MINOS
Cambridge University

Iijima, Toru ..... Development of New Particle Identication Devices for Future B-factory Experiments
Nagoya University

Ikado, Koji ..... High Mass Dilepton Pairs in the CDF Run II Data
Waseda University

Kim, Doris ..... Recent Semileptonic Physics Results from the FOCUS/E831 Experiment
University of Illinois

Kulasiri, Ratnappuli ..... Search for $B \to D_s^* + h$ Decays with the Belle Detector
University of Cincinnati

Legendre, Marie ..... Study of CP-asymmetries in BABAR with Partial Reconstruction of $B^0 \to D^{*-}\pi^+$
CEA, Saclay

Li, Selina ..... Studies of the $D_{sJ}^*(2317)$ and Observation of the $D_{sJ}^*(2463)$ at CLEO
University of Minnesota

Libby, James ..... Measurements of Rare Flavor Changing Neutral Current B Decays
Stanford Linear Accelerator Center

Maravin, Yurii ..... Measurements of the W and Z Production Cross Sections at D0 using the Muon Decay Channels
Fermi National Accelerator Laboratory

Messina, Andrea ..... Studies of W + jets Events in Run II at CDF
University of Rome, La Sapienza

Mohr, Brian ..... Study of the Performance of the CMS Endcap Muon Trigger
University of California, Los Angeles

Mulhearn, Michael ..... A Direct Search for Dirac Magnetic Monopoles at CDF
Massachusetts Institute of Technology

Nadolsky, Pavel ..... Nonperturbative Contributions in Tranverse Momentum Resummation
Southern Methodist University

Niebuhr, Carsten ..... H1 Upgrades for High Luminosity HERA Running
DESY, Hamburg

Ootani, Wataru ..... MEG Experiment: A New Experiment to Search for $\mu \to e\gamma$ at PSI
ICEPP, University of Tokyo

Orejudos, William ..... Run 2 Search for Long-lived Massive Charged Particles at CDF
Lawrence Berkeley National Lab.

Pascoli, Silvia ..... On the Connection Between Low-energy Leptonic CP-violation and Leptogenesis
University of California, Los Angeles

Perez Martinez, Aurora ..... Quantum Instability of Magnetized Stellar Objects
ICIMAF, Havana

Petyt, David ..... Test-beam Measurements with the MINOS Calibration Detector
University of Minnesota

Pitzl, Daniel ..... Hera-III
DESY, Hamburg

Ray, Heather ..... B-jet Tagging Efficiency in Run II at CDF
University of Michigan

Recksiegel, Stefan *and* Sumino, Yukinari .. Fine and Hyperfine Splittings of Charmonium and Bottomonium: An Improved Perturbative QCD Approach
Tech. U. of Munich *Tohoku Univ.*

Rodriguez Lopez, Jairo Alexis ..... Bounds on Charged Higgs Boson in the 2HDM Type III
Universidad Nacional de Colombia

Rott, Carsten ..... Searches for the Supersymmetric Partner of the Bottom Quark using the CDF Detector at the Tevatron
Purdue University

South, David ..... Physics Results from H1
DESY, Hamburg

Strang, Michael ..... The Forward Proton Detector at D0
University of Texas, Arlington

Tanimoto, Naho ..... Measurement of $W + \gamma$ Production at CDF
Okayama University

Tonelli, Diego ..... Branching Fractions and Direct CP-violation in the $B \to h^+h'^-$ Decays at CDF II
INFN, Pisa

Treccani, Michele ..... Higher Order Radiative Correction to Drell-Yan Processes at Hadron Colliders
University of Pavia

Wang, Gensheng ..... Dark Matter Search with the CDMS Experiment
Case Western Reserve University

Wilson, Michael ..... The $D_s(2317)$, $D_s(2457)$ and Limits on Neutral D-meson Mixing
University of California, Santa Cruz

Worcester, Matthew ..... Search for Like-sign Dileptons in the CDF Run I Data
University of California Los Angeles

Yamazaki, Yuji ..... The ZEUS Experiment at HERA
KEK

Yang, Un-Ki ..... Unified Approach for Modeling Neutrino and Electron Nucleon Scattering Cross Sections
University of Chicago

Yu, Shin-Shan ..... Measurement of Λ_b Branching Ratios in Modes Containing a Λ_c
University of Pennsylvania

Zeng, Qinglin ..... Recent Results from BABAR on Charmonium Production in B Decays
Colorado State University

Zhu, Jun-Jie ..... Measurement of the W and Z Production Cross Sections at D0 using the Electron Decay Channels
University of Maryland

Zwaska, Robert ..... Status of the NuMI Project
University of Texas, Austin

Laboratory Posters

ANL ..... Wakefield Accelerator Drives Tomorrow's High Energy Physics Research
ATLAS Tile Calorimeter Support Structure

BNL ..... Very Long Baseline Neutrino Oscillation Experiments
Measuring $|V_{td}|$ with E949 at BNL
The U.S. is a Major Collaborator in ATLAS
RSVP (Rare Symmetry Violating Processes)
BNL AGS E821 – A Precision Measurement of the Anomalous Magnetic Moment of the Muon

CCLRC ..... Particle Physics Experiments Supported by CCLRC RAL
Accelerator R&D for Particle Physics within CCLRC

CEA DAPNIA ..... SPP: Service de Physique des Particules

CERN ..... A Laboratory for the World
Getting to the Heart of the Matter
Unlocking the Mysteries of the Universe
The World's Most Powerful Particle Accelerator

DESY ..... Global Networks
HERA at DESY
TESLA Linear Collider
XFEL with TESLA Technology

FNAL ..... Questions About the Cosmos
The Universe is Not Enough
To Make Sense of the Universe – from Quarks to the Cosmos

IHEP, Beijing ..... BEPC at BES
Programs at IHEP
BEPCII: The Major Upgrade Program of BEPC

KEK ..... KEKB and Belle
K2K and Next Generation Long Baseline Experiment
J-PARC High Intensity Proton Accelerator Facility
GLC Linear Collider for TeV Physics

LAL ..... LAL Participants
Scientific Goals
CTF3 and TESLA

LBNL ..... Neutrino Science at Berkeley Lab: Understanding Neutrino Oscillations
Reactor Neutrino Measurement of θ_{13}
Supernova/Acceleration Probe (SNAP)

LEPP, Cornell ..... Heavy Quark Spectroscopy
$|V_{cb}|$ and $|V_{ub}|$ from $B \to X\ell\nu$
CLEO-c, CESR-c and Accelerator Physics

LNF ..... Understanding Nature from Quarks to Stars
Where e^+e^- Colliders Were Born
Science, Technology, and Society

LNGS ..... Gran Sasso National Laboratories
Neutrino Physics
Dark Matter, Rare Events and More...

SLAC ..... B Factory PEP-II and BABAR
R&D for the Linear Collider and Detector
Particle Astrophysics

Contributed Papers

Electroweak Physics and Beyond

Alekhin, S.	hep-ph/0307219	The NNLO Predictions for the Rates of the W/Z Production in pp and $\bar{p}p$ Collisions
Akushevich, I.	hep-ph/0307333	Electroweak Radiative Effects in the Single W-Production at Tevatron and LHC
BELLE Collaboration		An Upper Bound on the Decay $\tau \to \mu\gamma$ from Belle
BELLE Collaboration		Search for the Lepton-Flavor-Violating Decay $\tau^- \to \mu^-\eta$ Decay at Belle
Bruneliere, R.	hep-ph/0201304	On Theoretical Uncertainties of the W Angular Distribution in W-Pair Production at LEP2 Energies
DELPHI Collaboration		Final Results from DELPHI on the Searches for SM and MSSM Neutral Higgs Bosons
DELPHI Collaboration		Measurement of Charged Triple Gauge Boson Couplings at DELPHI
DELPHI Collaboration		Study of W Boson Polarisations and Measurement of TGCs in the Reaction $e^+e^- \to W^+W^-$ at Energies between 189 and 208 GeV
DELPHI Collaboration		Measurement of the Mass and Width of the W Boson in e^+e^- Collisions at $\sqrt{s} \simeq$ 192-209 GeV
DELPHI Collaboration		Measurement of the W-pair Production Cross Section and W Branching Ratios in e^+e^- Collisions at $\sqrt{s}$ = 161-209 GeV
DELPHI Collaboration		Study of Tau-pair Production in Photon-Photon Collisions at LEP and Limits on the Anomalous Electromagnetic Moments of the Tau Lepton
DELPHI Collaboration		Single Intermediate Vector Boson Production in e^+e^- Collisions at $\sqrt{s}$ =183-209 GeV
DELPHI Collaboration		ZZ Production in e^+e^- Interactions
DELPHI Collaboration		Determination of A^b_{FB} using Inclusive Charge Reconstruction and Lifetime Tagging at the Z Pole
DELPHI Collaboration		Measurement of the Forward-Backward Asymmetries of $e^+e^- \to Z \to b\bar{b}$ and $e^+e^- \to Z \to c\bar{c}$ using Prompt Leptons
DELPHI Collaboration		Correlations between Particles from different W Bosons in $e^+e^- \to W^+W^-$ Events
DELPHI Collaboration		Measurement of the $e^+e^- \to W^+W^-\gamma$ Cross Section and Limits on Anomalous Quartic Gauge Coupling with DELPHI
DELPHI Collaboration		A Measurement of the Tau Hadronic Branching Ratios
DELPHI Collaboration		A Precise Measurement of the Tau Lifetime
DELPHI Collaboration		$Z\gamma^*$ Production in e^+e^- Interactions at $\sqrt{s}$ = 183 - 209 GeV in DELPHI
DELPHI Collaboration		Determination of the $e^+e^- \to \gamma\gamma(\gamma)$ Cross Section at LEP 2

DELPHI Collaboration ..... Update on the Investigation of Colour Reconnection in WW pairs using Particle Flow and mW Estimators

DELPHI Collaboration ..... Searches for Invisibly Decaying Higgs Bosons with the DELPHI Detector at LEP

DELPHI Collaboration ..... Searches for Neutral Higgs Bosons in Extended Models

DELPHI Collaboration ..... Search for Charged Higgs Bosons at LEP in General Two Higgs Doublet Models

DELPHI Collaboration ..... Complete DELPHI Data: Limits on Higgs Boson Masses and $tan\beta$ from a MSSM Parameter Scan

DELPHI Collaboration ..... Photon Events with Missing Energy at $\sqrt{s}$ =130 to 209 GeV

DELPHI Collaboration ..... Search for Single Top Production via FCNC with the DELPHI Detector at LEP at $\sqrt{s}$=189-208GeV

DELPHI Collaboration ..... Search for Fermiophobic Higgs at LEP2

DELPHI Collaboration ..... Flavour Independent Neutral Higgs Boson Searches with DELPHI at LEP-2

DELPHI Collaboration ..... DELPHI Results on Neutral Higgs Bosons in MSSM Benchmark Scenarios

DELPHI Collaboration ..... Search for Supersymmetric Particles with R-parity Violation in e^+e^- Collisions at $\sqrt{s}$ = 192 to 208 GeV

DELPHI Collaboration ..... Study of the Anomaly Mediated SUSY Breaking Model in DELPHI

DELPHI Collaboration ..... Search for a Fourth Generation b'-quark at LEP-II at $\sqrt{s}$=200-209 GeV

DELPHI Collaboration ..... Searches for Supersymmetric Particles in e^+e^- Collisions up to 208 GeV and Interpretation of the Results within the MSSM

H1 Collaboration ..... Search for Excited Neutrinos at HERA

H1 Collaboration ..... Isolated Electrons and Muons in Events with Missing Transverse Momentum at HERA

H1 Collaboration ..... Search for Excited Electrons at HERA

H1 Collaboration ..... Multi-Electron Production at High Transverse Momenta in ep Collisions at HERA

H1 Collaboration ..... Search for Single Top Production in ep Collisions at HERA

H1 Collaboration ..... Searches for Squark Production in R-Parity Violating Supersymmetry at HERA

H1 Collaboration ..... Muon Pair Production in ep Collisions at HERA

H1 Collaboration ..... Search for Doubly Charged Higgs Production at HERA

H1 Collaboration ..... A Search for Leptoquarks at HERA

H1 Collaboration ..... A Direct Search for Magnetic Monopoles at HERA

H1 Collaboration ..... General Search for New Phenomena in ep Scattering at HERA

H1 Collaboration ..... Search for Superlight Gravitinos at HERA

H1 Collaboration		Search for New Physics in $e^{\pm}q$ Contact Interactions at HERA
Jadach, S.	hep-ph/0209268	Electric Charge Screening Effect in Single W Production with the Koralw Monte Carlo
Jadach, S.	hep-ph/0109279	Exact Differential O(α^2) Results for Hard Bremsstrahlung in e^+e^- Annihilation to 2F at and Beyond LEP-2 Energies
Jadach, S.	hep-ph/0109072	On Theoretical Uncertainties of the W Boson Mass Measurement at LEP2
KLOE Collaboration	hep-ex/0307051	Determination of $\sigma(e^+e^- \to \pi^+\pi^-)$ from Radiative Processes at DAΦNE
Landry, F.	hep-ph/0212159	Tevatron Run-1 Z Boson Data and Collins-Soper-Sterman Resummation Formalism
Nelson, C. A.	hep-ph/0304198	On the Top-Quark's Chiral Weak Moment
OPAL collaboration		Measurement of the b Quark Forward-Backward Asymmetry around the Z^0 Peak using an Inclusive Tag
OPAL collaboration		Measurement of Neutral-Current Four-Fermion Production at LEP2
OPAL collaboration		Measurement of the b and c Quark Forward-Backward Asymmetries and Average B Mixing in Z^0 Decays using Leptons in Hadronic Events
OPAL collaboration		Multi-Photon Production in e^+e^- Collisions at 181 - 209 GeV
OPAL collaboration		Test of Non-commutative QED in the Process e^+e^- to $\gamma\gamma$ at LEP
OPAL collaboration		Tests of the Standard Model and Constraints on New Physics from Measurements of Fermion-pair Production at 189-209 GeV at LEP
OPAL collaboration		Study of Z Pair Production and Anomalous Couplings in e^+e^- Collisions at $\sqrt{s}$ between 190 and 209 GeV
OPAL collaboration		Determination of the LEP Beam Energy using Radiative Fermion-pair Events
OPAL collaboration		Measurement of the Mass of the W Boson in e^+e^- Collisions using the Fully Leptonic Channel
OPAL collaboration		Measurement of Charged Current Triple Gauge Boson Couplings at LEP
OPAL collaboration		Measurement of Triple Gauge Boson Couplings using Photonic Events with Missing Energy at $\sqrt{s}$ = 189-207 GeV
OPAL collaboration		W Boson Polarisation at LEP2
OPAL collaboration		Constraints on Anomalous Quartic Gauge Boson Couplings using Acoplanar Photon Pairs at LEP-2
OPAL collaboration		A study of $W^+W^-\gamma$ Events at LEP
OPAL collaboration		Bose-Einstein Correlations in W-pair Hadronic Decays at LEP
OPAL collaboration		Colour Reconnection Studies in $e^+e^- \to W^+W^-$ Events at $\sqrt{s}$=190-208 GeV using Particle Flow

OPAL collaboration ..... Measurement of the Mass of the W Boson

OPAL collaboration ..... Search for Yukawa Production of a Light Neutral Higgs Boson at LEP

OPAL collaboration ..... Search for Doubly Charged Higgs Bosons with the OPAL Detector at LEP

OPAL collaboration ..... Decay-Mode Independent Searches for New Scalar Bosons with the OPAL Detector at LEP

OPAL collaboration ..... Search for Associated Production of Massive States Decaying into Two Photons in e^+e^- Annihilation at $\sqrt{s}$=88-209 GeV

OPAL collaboration ..... Search for a Low Mass CP-odd Higgs Boson in e^+e^- Collisions with the OPAL Detector at LEP2

OPAL collaboration ..... Search for the Standard Model Higgs Boson with the OPAL Detector at LEP

OPAL collaboration ..... Search for the Standard Model Higgs Boson at LEP (This is the LEP combined paper)

OPAL collaboration ..... Search for the Single Production of Doubly-Charged Higgs Bosons and Constraints on its Couplings from Bhabha Scattering

OPAL collaboration ..... Search for Neutral Higgs Bosons in CP Conserving and CP Violating MSSM Scenarios with the OPAL Detector at LEP

OPAL collaboration ..... Flavour Independent Search for a Hadronically Decaying Higgs Boson in e^+e^- Collisions

OPAL collaboration ..... Search for Charged Higgs Bosons using the OPAL Detector at LEP2

OPAL collaboration ..... Search for Lepton Flavour Violation in e^+e^- Collisions at $\sqrt{s}$ = 189-209 GeV

OPAL collaboration ..... Search for Single Top Quark Production at LEP2

OPAL collaboration ..... Search for Leptoquarks in Electron-Photon Scattering at $\sqrt{s}$ up to 209 GeV at LEP

OPAL collaboration ..... Search for Charged Excited Leptons in e^+e^- Collisions at $\sqrt{s}$=183-209 GeV

OPAL collaboration ..... Search for Scalar Top and Scalar Bottom Quarks at LEP

OPAL collaboration ..... Search for nearly Mass Degenerate Charginos and Neutralinos at LEP

OPAL collaboration ..... Search for Stable and Long-Lived Massive Charged Particles in e^+e^- Collisions at $\sqrt{s}$=183-209 GeV

OPAL collaboration ..... Search for Pair-Produced Leptoquarks in e^+e^- Interactions at $\sqrt{s}$ = 189 - 209 GeV

OPAL collaboration ..... Search for Anomalous Production of Acoplanar Di-lepton Events in e^+e^- Collisions at $\sqrt{s}$ =183-208 GeV

OPAL collaboration ..... Search for R-Parity Violating Decays of Scalar Fermions at LEP

OPAL collaboration		Searches for GMSB Signatures in e^+e^- Collisions at $\sqrt{s}$=189-208 GeV
OPAL collaboration		Search for Chargino and Neutralino Production at $\sqrt{s}$=192-209 GeV at LEP
OPAL collaboration		Searches for Technicolor with the OPAL Detector in e^+e^- Collisions at the Highest LEP Energies
OPAL collaboration		Searches for Radions at LEP2
Su, Jun-Chen	hep-th/0010018	Alternative Formulation of the Quantum Electroweak Theory
ZEUS Collaboration		Search for W Production using the Hadronic Decay Channel in ep Collisions at HERA
ZEUS Collaboration		Searches for Single-Top Production in ep Collisions at HERA
ZEUS Collaboration		A Search for Resonance Decays to Lepton+Jet at HERA and Limits on Leptoquarks
ZEUS Collaboration		Search for Lepton Flavor Violation in τ Production in ep Collisions at HERA
ZEUS Collaboration		Searches for Single-top Production in ep Collisions at HERA (updated results)

QCD Phenomenology and Theory

Alekhin, S.	hep-ph/0211294	Value of α_s from Deep Inelastic Scattering Data
Boyanovsky, D.	hep-ph/0108180	Dynamical Renormalization Group Approach to the Altarelli-Parisi-Lipatov Equations
DELPHI Collaboration		Determination of the b Quark Mass at the M_Z Scale with the DELPHI Detector at LEP
DELPHI Collaboration		Study of Hadronic Photon Structure Function at LEP2
DELPHI Collaboration		A Study of the Energy Evolution of Event Shape Distributions and their Means with the DELPHI Detector at LEP
DELPHI Collaboration		Azimuthal Angle Correlation of Like Sign Pion Pairs and the Transverse BEC Radius
DELPHI Collaboration		Measurement of b-Quark Mass Effects in the Four-Jet Rate at LEP
DELPHI Collaboration		The Measurement of α_s from Event Shapes with the DELPHI Detector at the Highest LEP Energies
H1 Collaboration		Measurement of Dijet Electroproduction at Small Jet Separation
H1 Collaboration		Measurement of Dijet Cross Sections in Photoproduction at HERA
H1 Collaboration		Measurement of Inclusive Jet Cross Sections in Photoproduction at HERA
H1 Collaboration		Measurement of Inclusive Jet Cross Sections in Deep-Inelastic ep Scattering at HERA

H1 Collaboration		Search for QCD Instanton-Induced Processes in Deep-Inelastic Scattering at HERA
H1 Collaboration		Inclusive Dijet Production at Low Bjorken-x in Deep Inelastic Scattering
H1 Collaboration		D^*-Muon Correlations in ep Scattering at HERA
H1 Collaboration		Inclusive D-meson Production in Deep Inelastic Scattering at HERA
H1 Collaboration		Photoproduction of D^* Mesons at HERA
H1 Collaboration		Inclusive D^* Meson and Associated Dijet Production in Deep Inelastic Scattering
H1 Collaboration		Forward Jet Production at HERA
H1 Collaboration		Two-Jet and Three-Jet Differential Event Shapes in Deep Inelastic Scattering
H1 Collaboration		Measurement of Beauty Production at HERA using Semi-Muonic Decays
KLOE collaboration	hep-ex/0303016	Study of the Decay $\phi \to \pi^+\pi^-\pi^0$ with the KLOE Detector
KLOE Collaboration	hep-ex/0204024	Measurement of Gamma($K_s \to \pi^+\pi^-\gamma$)/Gamma($K_s \to \pi^0\pi^0$)
KLOE Collaboration	hep-ex/0204013	Study of the Decay $\phi \to \pi^0\pi^0\gamma$ with the KLOE Detector
KLOE Collaboration	hep-ex/0204012	Study of the Decay $\phi \to \eta\pi^0\gamma$ with the KLOE Detector
KLOE Collaboration	hep-ex/0307054	Measurement of the Branching Ratio for the Decay $K^\pm \to \pi^\pm\pi^0\pi^0$ with the KLOE Detector
Kretzer, S.		The Parton Structure of the Nucleon and Precision Determination of the Weinberg Angle in Neutrino Scattering
Nadolsky, P.	hep-ph/0210082	Resummation of Transverse Momentum and Mass Logarithms in DIS Heavy-Quark Production
OPAL collaboration		Genuine Correlations of Like-Sign Particles in Hadronic Z^0 Decays
OPAL collaboration		Particle Multiplicity of Unbiased Gluon Jets from e^+e^- Three-Jet Events
OPAL collaboration		Charged Particle Momentum Spectra in e^+e^- Annihilation at $\sqrt{s}$ = 192-209 GeV
OPAL collaboration		Bose-Einstein Correlations of Pizero Pairs from Hadronic Z^0 Decays
OPAL collaboration		Updated Measurements of α_s using Event Shape Observables
OPAL collaboration		Measurement of α_s in Radiative Hadronic Events
OPAL collaboration		Measurement of the Hadronic Cross Section for the Scattering of Two Virtual Photons at LEP
OPAL collaboration		Di-Jet Production in Photon-Photon Collisions at $\sqrt{s_{ee}}$ from 189 to 209 GeV
Ward, B. F. L.	hep-ph/0205062	YFS MC Approach to QCD Soft Gluon Exponentiation
ZEUS Collaboration		A Search for QCD-Instanton Induced Events in DIS at HERA

ZEUS Collaboration ..... Scaling Violations and Determination of α_s from Jet Production in γp Interactions at HERA

ZEUS Collaboration ..... Measurement of Subjet Multiplicities in Neutral Current Deep Inelastic Scattering at HERA and Determination of α_s

ZEUS Collaboration ..... Measurement of Event Shapes in Deep Inelastic Scattering at HERA

Flavour Physics: Rare Physics and Beyond the Standard Model

BABAR Collaboration ..... Measurement of Branching Fractions and Charge Asymmetries in B Meson Decays to $\eta(')$ K^*, $\eta(')$ ρ, and $\eta'\pi$

BABAR Collaboration ..... Measurement of the B $\rightarrow X_s\ l^+l^-$ Branching Fraction Using a Sum over Exclusive Modes

BABAR Collaboration ..... Measurement of Branching Fractions for $B^0 \rightarrow K^*2(1430)\ \gamma$ and $B^+ \rightarrow K^*2(1430)+\ \gamma$

BABAR Collaboration ..... Search for the B Meson Decay to $\eta'\ \phi$

BABAR Collaboration ..... Observation of the Decay $B^0 \rightarrow \rho^+\rho^-$ and Measurement of the Branching Fraction and Polarization

BELLE Collaboration ..... Observation of $B \rightarrow \phi\phi K$

BELLE Collaboration ..... Search for $B^0 \rightarrow \ell^+\ell^-$ at Belle

BELLE Collaboration ..... Observation of Radiative $B \rightarrow \phi K\gamma$ Decays

BELLE Collaboration ..... Measurement of the CP Asymmetry in $B \rightarrow X_s\gamma$

BELLE Collaboration ..... Observation of $B^0 \rightarrow p\Lambda\pi$

BELLE Collaboration ..... Observation of $B^+ \rightarrow \rho^+\rho^0$

BELLE Collaboration ..... Measurement of Branching Fractions and Polarization in $B \rightarrow \phi K^{(*)}$ Decays

BELLE Collaboration ..... Measurement of the Branching Fractions for $B \rightarrow \omega K$ and $B \rightarrow \omega\pi$

BELLE Collaboration ..... Observation of $B^+ \rightarrow p\bar{p}\pi^+$, $B^0 \rightarrow p\bar{p}K^0$, and $B^+ \rightarrow p\bar{p}K^{*+}$

BELLE Collaboration ..... Measurement of the $B \rightarrow K^*\gamma$ Branching Fractions and Asymmetries

BELLE Collaboration ..... Observation of the Decays $B^0 \rightarrow K^+\pi^-\pi^0$ and $B^0 \rightarrow \rho^-K^+$

BELLE Collaboration ..... Improved Measurements of Properties of B to $K\pi$, $\pi\pi$ and $K\overline{K}$ Decays

CLEO Collaboration hep-ex/0303009 Study of the Charmless Inclusive Decay B to $\eta'\ X$

CLEO Collaboration ..... Cabibbo-Suppressed Decays of D^+ to $\pi^+\pi^0, K^+K^0, K^+\pi^0$

CLEO Collaboration ..... Evidence for Two-Body Hadronic Decays of the Upsilon

CLEO Collaboration hep-ex/0304036 Measurement of Charge Asymmetry in B to $K^{*\pm}\pi^{\mp}$

CLEO Collaboration hep-ex/0302026 Measurements of Charmless Hadronic Two-Body B Meson Decays

CLEO Collaboration	hep-ex/0305005	Search for Baryons in the Radiative Penguin Decay b to $s\gamma$
CLEO Collaboration	hep-ex/0302028	Branching Fractions of Tau Leptons to Three Charged Hadrons
Eeg, J. O.	hep-ph/0307042	Nonfactorizable Contributions in Anti-$B^0 \to D_s^+ \; D_s^-$ and anti-$B_s^0 \to D^+D^-$ Decays
KLOE Collaboration	hep-ex/0305035	Measurement of the Ratio Gamma($K_L \to \gamma\gamma$)/Gamma($K_L \to \pi^0\pi^0\pi^0$) with the KLOE Detector
KLOE Collaboration	hep-ph/0203232	Measurement of the Branching Fraction for the Decay $K_S \to \pi e\nu$
KLOE Collaboration	hep-ex/0305108	Recent Results from the KLOE Experiment at DAPHNE
KLOE Collaboration	hep-ex/0307042	Searching for η to 3γ Decay
OPAL collaboration		A Measurement of the $\tau \to \mu\nu\nu$ Branching Ratio

Flavour Physics: CKM and QCD

BABAR Collaboration	Measurement of sin(2β)+γ in Fully Reconstructed $B \to D(*)\pi$ Decays
BABAR Collaboration	Partial Reconstruction of $B^0 \to D_s^*$+D^{*-} Decays and Determination of the ${D_s}^+ \to \phi\pi^+$ Branching Fraction
BABAR Collaboration	A Measurement of the Total Width, Electronic Width, and Mass of the $Y(10580)$ Resonance
BABAR Collaboration	Measurement of $\|V_{cb}\|$ from $B^0 \to D^* l\nu_l$ Decays
BABAR Collaboration	Study of the Decays $B^- \to D^{(*)+}\pi^-\pi^-$
BELLE Collaboration	Measurement of Inclusive Charmless Semileptonic B Decays at the Endpoint of the Electron Momentum Spectrum
BELLE Collaboration	Measurement of the Angle ϕ_3 with Dalitz Analysis of Three-Body D^0 Decay from $B \to D^0K$ Process
BELLE Collaboration	Measurement of Time-Dependent CP-Violating Asymmetries in $B^0 \to \phi K_S^0$, $K^+K^-K_S^0$ and $\eta' K_S^0$ Decays
BELLE Collaboration	Measurement of the Branching Fraction for B$\to$ $\psi(2S)K^*(892)$ Decays
BELLE Collaboration	Measurement of CP-Violation Parameter $\sin 2\phi_1$ with 152 Million $B\overline{B}$ Pairs
BELLE Collaboration	Measurement of Branching Fraction Ratios and CP Asymmetries in $B^\pm \to D_{CP}K^\pm$
BELLE Collaboration	Observation of $B^\pm \to D_{CP}K^{*\pm}$ Decays
BELLE Collaboration	Observation of $B^+ \to \psi(3770)K^+$
BELLE Collaboration	A Study of Double $c\bar{c}$ Production in e^+e^- Annihilation at $\sqrt{s} \approx 10.6$ GeV
BELLE Collaboration	Measurement of the $e^+e^- \to D^{(*)+}D^{(*)-}$ Cross Sections

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BELLE Collaboration ..... Study of $B^- \to D^{**0}\pi^-(D^{**0} \to D^{(*)+}\pi^-)$ Decays

BELLE Collaboration ..... Measurements of the D_{sJ} Resonance Properties

BELLE Collaboration ..... Measurement of the Ω_c^0 Mass and Observation of $\Omega_c^0 \to \Omega^-\ell^+\nu$

BELLE Collaboration ..... Observation of Radiative Decay $D^0 \to \phi\gamma$

BELLE Collaboration ..... Measurement of the D^0-$\bar{D}^0$ Lifetime Difference using $D^0 \to K\pi/KK$ Decays

BELLE Collaboration ..... Observation of a New Narrow Charmonium State in Exclusive $B^\pm \to K^\pm\pi^+\pi^- J/\psi$ Decays

BELLE Collaboration ..... Evidence for $B^+ \to \omega l^+\nu$

BELLE Collaboration ..... Studies of $B^0 \to \rho^\pm\pi^\mp$ and Evidence of $B^0 \to \rho^0\pi^0$

Cheng, Hai-Yang hep-ph/0212117 Hadronic Charmed Meson Decays Involving Scalar Mesons

CLEO Collaboration hep-ex/0306048 Dalitz Plot Analysis of D^0 to $\pi^+\pi^-\pi^0$ Decays in CLEO

CLEO Collaboration ..... Observation of the Hadronic Transitions $\chi_{b1,2}(2P) \to \omega$ Upsilon(1S)

CLEO Collaboration hep-ex/0212051 Measure of Lepton Momentum Moments, HQE parameters and $|V_{cb}|$

CLEO Collaboration hep-ex/0304015 Search for B Decay to $\bar{p}\ e\nu X$ using Partial Reconstruction

CLEO Collaboration hep-ex/0304019 Study of the q^2 Dependence of B to $\pi/\rho/\omega\ l\nu$ and V_{ub}

CLEO Collaboration ..... Measurement of Hadronic Recoil Mass Moments in Semileptonic B Decay

CLEO Collaboration hep-ex/0301028 Measure of Branching Fractions and Helicity Amplitudes in B to $D^*\rho$

CLEO Collaboration hep-ex/0306036 Measure of Form Factors and Search for CP Violation in Λ_c to $\Lambda e\nu$

CLEO Collaboration hep-ex/0305100 Observation of a Narrow Resonance at 2.46 GeV and Confirmation of the $D_sJ(2317)$

CLEO Collaboration hep-ex/0306060 Observation of $\eta_c{}'$ Production in Two-Photon Fusion at CLEO

DELPHI Collaboration ..... A Measurement of the Branching Fractions of the b-Quark into Charged and Neutral b-Hadrons

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DELPHI Collaboration ..... A Study of Excited b-Hadron States with the DELPHI Detector at LEP

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Dubois-Felsmann, G. P. ..... Sensitivity of CKM Fits to Theoretical Uncertainties and their Representation

H1 Collaboration ..... Diffractive Photoproduction of Psi(2S) Mesons at HERA

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KLOE Collaboration hep-ex/0307016 KLOE Prospects and Preliminary Results for Kl3 Decay Measurements

Li, Hsiang-nan hep-ph/0210173 k_T Factorization of Exclusive B Decays

OPAL collaboration ..... Inclusive Analysis of the b-Quark Fragmentation Function in Z Decays at LEP

OPAL collaboration ..... A Study of Charm Quark Production in Beauty Quark Decays with the OPAL Detector at LEP

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Cosmology and Astroparticle Physics

Kao, W. F. ..... Parameterization of the Equation of State and the Expansion History of the Very Recent Universe

Ward, B. F. L. hep-ph/0204102 Quantum Corrections to Newton's Law

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Neutrino Physics

Brahmachari, B. hep-ph/0303078 CP Violation and Matter Effect for a Variable Earth Density in Very Long Baseline Experiments

Hadron Structure

CMD-2 collaboration hep-ex/0112031 Recent Results of the R(s) Measurement at Low Energy Range with CMD-2 Detector

DELPHI Collaboration ..... Measurement of Inclusive $f_1(1285)$ and $f_1(1420)$ Production in Z Decays with the DELPHI Detector

Dominguez, C. A. hep-ph/0302271 Electromagnetic Nucleon Form Factors from QCD Sum Rules

H1 Collaboration ..... Measurement and QCD Analysis of Neutral and Charged Current Cross Sections at HERA

H1 Collaboration ..... Measurement of D^* Meson Production and F_2^c in Deep-Inelastic Scattering at HERA

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KLOE Collaboration hep-ex/0206010 Measurement of Gamma($\phi \to \eta'\gamma$)/Gamma($\phi \to \eta\gamma$) and the Pseudoscalar Mixing Angle

Leader, E. hep-ph/0212085 On the Role of Higher Twist in Polarized Deep Inelastic Scattering

Nadolsky, P. M. hep-ph/0304002 Single-Spin Asymmetries with Weak Bosons at RHIC

Maksimenko, N. V. hep-th/0307147 Definition Low-Energy Electromagnetic Characteristics of π-meson in the Covariant Three-Dimensional Approach

Mukherjee Asmita hep-ph/0306275 Manifestly Covariant Analysis of the QED Compton Process

OPAL collaboration ..... Tests of Models of Color Reconnection and a Search for Glueballs using Gluon Jets with a Rapidity Gap

OPAL collaboration ..... Measurement of the Hadronic Photon Structure Function ${F_2}^\gamma$ at LEP2

OPAL collaboration ..... Measurement of the Charm Structure Function $\mathrm{F}_{2,c}$ of the Photon at LEP

OPAL collaboration ..... Measurement of the Cross Section for the Process $\gamma\gamma \to p\bar{p}$ at $\sqrt{s}$=183-189 GeV at LEP

OPAL collaboration ..... Measurement of Isolated Prompt Photon Production in Photon-Photon Collisions at $\sqrt{s}$=183-209 GeV

Tung, Wu-Ki ..... Neutrino Dimuon Data and the Strangeness Content of the Nucleon

ZEUS Collaboration ..... Measurement of High-Q^2 Charged Current Cross sections in e^+p Deep Inelastic Scattering at HERA

ZEUS Collaboration ..... Jet Production in Charged Current Deep Inelastic e^+p Scattering at HERA

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Future Facilities

Braguta, V.	hep-ph/0208133	Future e^+e^- Colliders Sensitivity to $Hb\bar{b}$ Coupling and CP Violation
$\gamma\gamma$ American Linear Collider Physics Group	hep-ph/0308103	Complementarity of a Low Energy Photon Collider and LHC Physics

List of Participants

1	Abe, Kazuo	KEK	Japan
2	Abramowicz, Halina	Tel Aviv University	Israel
3	Adams, Mark	University of Illinois, Chicago	USA
4	Aguilar-Benitez, Manuel	CIEMAT	Spain
5	Aihara, Hiroaki	University of Tokyo	Japan
6	Akchurin, Nural	Texas Tech University	USA
7	Albert, Justin	California Institute of Technology	USA
8	Albright, Carl	Northern Illinois University	USA
9	Albrow, Michael	Fermi National Accelerator Laboratory	USA
10	Alekhin, S. I.	IHEP, Serpukhov	Russia
11	Anderson, Kelby	University of Chicago	USA
12	Andrieu, Michel	The Ultimate Particle	France
13	Apollinari, Giorgio	Fermi National Accelerator Laboratory	USA
14	Appel, Jeff	Fermi National Accelerator Laboratory	USA
15	Armstrong, Stephen	CERN	CERN
16	Artuso, Marina	Syracuse University	USA
17	Aston, David	Stanford Linear Accelerator Center	USA
18	Atramentov, Oleksiy	Iowa State University	USA
19	Avery, Paul	University of Florida	USA
20	Avvakumov, Sergey	Stanford University	USA
21	Aymar, Robert	CERN	CERN
22	Ayres, David	Argonne National Laboratory	USA
23	Azzi, Patrizia	INFN, Padova	Italy
24	Bacci, Cesare	INFN, Roma II	Italy
25	Bachacou, Henri	Lawrence Berkeley National Laboratory	USA
26	Banerjee, Sudeshna	Tata Institute of Fundamental Research	India
27	Bargassa, Pedrame	Rice University	USA
28	Bauer, Dan	Fermi National Accelerator Laboratory	USA
29	Bedeschi, Franco	INFN, Pisa	Italy
30	Behnke, Ties	DESY, Hamburg	Germany
31	Bellagamba, Lorenzo	INFN, Bologna	Italy
32	Bellerive, Alain	Carleton University	Canada
33	Bellettini, Giorgio	INFN, Pisa	Italy
34	Benvenuti, Alberto	CERN	Italy
35	Beretvas, Andy	Fermi National Accelerator Laboratory	USA
36	Berger, Edmond	Argonne National Laboratory	USA
37	Bernardi, Gregorio	LPNHE-Paris	France
38	Bernstein, Robert	Fermi National Accelerator Laboratory	USA
39	Bertani, Monica	Laboratori Nazionali di Frascati	Italy
40	Bertolucci, Sergio	Laboratori Nazionali di Frascati	Italy
41	Bhat, Pushpa	Fermi National Accelerator Laboratory	USA
42	Bianco, Stefano	Laboratori Nazionali di Frascati	Italy
43	Bigi, Ikaros	University of Notre Dame	USA
44	Binkley, Morris	Fermi National Accelerator Laboratory	USA
45	Black, Kevin	Boston University	USA
46	Blaylock, Guy	University of Massachusetts	USA

47	Blazey, Jerry	Northern Illinois University	USA
48	Bloom, Elliott	Stanford Linear Accelerator Center	USA
49	Bloom, Ken	University of Michigan	USA
50	Bocian, Dariusz	INP Cracow	Poland
51	Bock, Greg	Fermi National Accelerator Laboratory	USA
52	Boehnlein, Amber	Fermi National Accelerator Laboratory	USA
53	Boisvert, Veronique	CERN	CERN
54	Bortoletto, Daniela	Purdue University	USA
55	Branson, James	University of California, San Diego	USA
56	Brau, James E.	University of Oregon	USA
57	Bromberg, Carl	Michigan State University	USA
58	Browder, Tom	University of Hawaii	USA
59	Brown, Chuck	Fermi National Accelerator Laboratory	USA
60	Brubaker, Erik	University of California, Berkeley	USA
61	Buchalla, Gerhard	LMU	Germany
62	Buchanan, Norm	Florida State University	USA
63	Buckley-Geer, Elizabeth	Fermi National Accelerator Laboratory	USA
64	Buehler, Marc	University of Illinois, Chicago	USA
65	Buescher, Volker	University of Freiburg	Germany
66	Buesser, Karsten	DESY, Hamburg	Germany
67	Bussey, Peter J.	Glasgow University	UK
68	Butler, Joel	Fermi National Accelerator Laboratory	USA
69	Calder, Neil	Stanford Linear Accelerator Center	USA
70	Canelli, Florencia	University of Rochester	USA
71	Casey, Brendan	Brown University	USA
72	Cashmore, Roger	CERN	CERN
73	Ceccucci, Augusto	CERN	CERN
74	Chakraborty, Dhiman	Northern Illinois University	USA
75	Chang, Lay Nam	Virginia Tech	USA
76	Chang, Ngee-Pong	City College of New York	USA
77	Chang, Paoti	National Taiwan University	Taiwan
78	Chau, Nguyen Ham	Vietnam Cultural Window Magazine	Vietnam
79	Chen, Chunhui	University of Pennsylvania	USA
80	Cheng, Hai-Yang	Academia Sinica	Taiwan
81	Chertok, Max	University of California, Davis	USA
82	Cheung, Harry W. K.	Fermi National Accelerator Laboratory	USA
83	Chiang, Cheng-Wei	Argonne National Laboratory	USA
84	Childress, Sam	Fermi National Accelerator Laboratory	USA
85	Chiodini, Gabriele	INFN, Lecce	Italy
86	Chlebana, Frank	Fermi National Accelerator Laboratory	USA
87	Choi, Seong Youl	Chonbuk National University	Korea
88	Choi, Soo Kyung	Gyeongsang National University	Korea
89	Chomeiko, Nikolai	National Center for Particle Physics	Belarus
90	Chou, Aaron	Fermi National Accelerator Laboratory	USA
91	Chou, Chung-Hsien	Academia Sinica	Taiwan
92	Choudhary, Brajesh	Fermi National Accelerator Laboratory	USA
93	Christian, Dave	Fermi National Accelerator Laboratory	USA
94	Christova, Ekaterina	Inst. for Nucl. Research & Nucl. Energy	Bulgaria
95	Clare, Robert	University of California, Riverside	USA

96	Coca, Mircea N.	University of Rochester	USA
97	Cochran, James	Iowa State University	USA
98	Collins, John	Penn State University	USA
99	Conta, Claudio	INFN, Pavia	Italy
100	Conway, John	Rutgers University	USA
101	Cooper, John	Fermi National Accelerator Laboratory	USA
102	Copic, Katherine	University of Michigan	USA
103	Cortes, Jose Luis	Universidad de Zaragoza	Spain
104	Cox, Brad	Univeristy of Virginia	USA
105	Crawford, Glen	U. S. Department of Energy	USA
106	Culbertson, Ray	Fermi National Accelerator Laboratory	USA
107	Curatolo, Maria	Laboratori Nazionali di Frascati	Italy
108	Cutts, David	Brown University	USA
109	Dainton, J. B.	Liverpool University	UK
110	Danilov, Mikhail V.	ITEP, Moscow	Russia
111	Dasu, Sridhara	University of Wisconsin, Madison	USA
112	Davies, Gavin	Imperial College London	UK
113	de Gouvea, Andre	Fermi National Accelerator Laboratory	USA
114	de Jesus, Maryvonne	Universite Claude Bernard Lyon-1	France
115	de Jong, Sijbrand	NIKHEF/University of Nijmegen	Netherlands
116	de Miranda, Jussara	Centro Brasileiro De Pesquisas Fisicas	Brazil
117	Declais, Yves	Universite Claude Bernard Lyon-1	France
118	Del Re, Daniele	University of California, San Diego	USA
119	Dell'Agnello, Simone	Laboratori Nazionali di Frascati	Italy
120	Demina, Regina	University of Rochester	USA
121	Denisov, Dmitri	Fermi National Accelerator Laboratory	USA
122	Deryuzhkova, Oksana	Gomel State University	Belarus
123	Di Giacomo, Adriano	INFN, Pisa	Italy
124	Diehl, Markus	DESY	Germany
125	Dionisi, Carlo	INFN, Roma I	Italy
126	Dittmann, Jay	Fermi National Accelerator Laboratory	USA
127	Dixon, Lance	Stanford Linear Accelerator Center	USA
128	Dobrescu, Bogdan	Fermi National Accelerator Laboratory	USA
129	Dominguez, Aaron	Lawrence Berkeley National Laboratory	USA
130	Dominguez, Cesareo	University of Cape Town, ICTP	South Africa
131	Dorfan, Jonathan M.	Stanford Linear Accelerator Center	USA
132	Dorjkhaidav, Orlokh	Syracuse University	USA
133	Dosselli, Umberto	INFN, Padova	Italy
134	Drell, Persis	Stanford Linear Accelerator Center	USA
135	Du, Dong-sheng	Chinese Academy of Sciences	China
136	Dubois-Felsmann, Gregory	California Institute of Technology	USA
137	Duboscq, Jean	Cornell University	USA
138	Duflot, Laurent	Universite de Paris-Sud	France
139	Durante, Elisabetta	Il Sole 24 Ore	Italy
140	Eads, Michael	Northern Illinois University	USA
141	Eichten, Estia	Fermi National Accelerator Laboratory	USA
142	Eisele, Franz	University of Heidelberg	Germany
143	Ekelof, Tord	Uppsala University	Sweden
144	Ellis, Keith	Fermi National Accelerator Laboratory	USA

145	Erbacher, Robin D.	Fermi National Accelerator Laboratory	USA
146	Ereditato, Antonio	INFN, Napoli	Italy
147	Erwin, Albert	University of Wisconsin, Madison	USA
148	Estrada, Juan	Fermi National Accelerator Laboratory	USA
149	Evans, Harold	Columbia University	USA
150	Fabbri, Franco	Laboratori Nazionali di Frascati	Italy
151	Fajfer, Svjetlana	University of Ljubljana	Slovenia
152	Fang, Hung-Chung	University of California, Berkeley	USA
153	Farbin, Amir	University of Maryland	USA
154	Farrington, Sinéad M.	University of Glasgow	UK
155	Feldman, Gary	Harvard University	USA
156	Feligioni, Lorenzo	Boston University	USA
157	Fernandez, Enrique	Univ. Autonoma de Barcelona	Spain
158	Field, Richard	University of Florida	USA
159	Filthaut, Frank	University of Nijmegen	Netherlands
160	Firestone, Alexander	National Science Foundation	USA
161	Fleischer, Manfred	DESY	Germany
162	Fogli, Gianluigi	INFN, Bari	Italy
163	Folkerts, Petra	DESY	Germany
164	Formaggio, Joseph A.	University of Washington	USA
165	Foster, Bill	Fermi National Accelerator Laboratory	USA
166	Foster, Brian	University of Bristol	UK
167	Fox, Harald	Northwestern University	USA
168	Franzini, Paolo	INFN, Roma I	Italy
169	Fry, John	University of Liverpool	UK
170	Fu, Shaohua	Columbia University	USA
171	Fuess, Stuart	Fermi National Accelerator Laboratory	USA
172	Fusco, Piergiorgio	INFN, Bari	Italy
173	Galea, Cristina	NIKHEF	Netherlands
174	Gambino, Paolo	CERN	CERN
175	Gao, Mingcheng	Columbia University	USA
176	Gao, Yongsheng	Southern Methodist University	USA
177	Garbincius, Peter	Fermi National Accelerator Laboratory	USA
178	Garcia-Bellido, Aran	University of Washington	USA
179	Garfinkel, Arthur	Purdue University	USA
180	Garisto, Robert	Physical Review	USA
181	Gehrmann, Thomas	RWTH Aachen	Germany
182	Gerberich, Heather K.	Duke University	USA
183	Giao, Nguyen Mong	Institute of Physics	Vietnam
184	Gibson, Adam	University of California, Berkeley	USA
185	Giele, Walter	Fermi National Accelerator Laboratory	USA
186	Gillies, James	CERN	CERN
187	Gilman, Fred	Carnegie Mellon University	USA
188	Ginsburg, Camille	University of Wisconsin, Madison	USA
189	Giorgi, Marcello	INFN, Pisa	Italy
190	Giudice, Gian-Francesco	CERN	CERN
191	Gladney, Larry	University of Pennsylvania	USA
192	Glenzinski, Doug	Fermi National Accelerator Laboratory	USA
193	Godbole, Rohini M.	Indian Institute of Science	India

194	Goerlach, Ulrich	Inst. de Recherches Subatomiques (IReS)	France
195	Goers, Stefan	Universitat Bonn	Germany
196	Goldman, Terrance J.	Los Alamos National Laboratory	USA
197	Goldschmidt, Nathan J.	University of Michigan	USA
198	Golling, Tobias	University of Bonn	Germany
199	Golowich, Eugene	University of Massachusetts	USA
200	Gomez-Ceballos, Guillelmo	University of Cantabria	Spain
201	Gonzalez Sprinberg, Gabriel	Instiuto de Fisica, ICTP	Uruguay
202	Gorelov, Igor	University of New Mexico	USA
203	Goshaw, Alfred	Duke University	USA
204	Goussiou, Anna	Imperial College of Science & Technology	UK
205	Grab, Christoph	ETH, Zurich	Switzerland
206	Grady, William	Chicago Tribune	USA
207	Gratta, Giorgio	Stanford University	USA
208	Gray, Stephen	Cornell University	USA
209	Greenlee, Herb	Fermi National Accelerator Laboratory	USA
210	Gritsan, Andrei	Lawrence Berkeley National Laboratory	USA
211	Grivaz, Jean-Francois	IN2P3/CNRS et Universite de Paris-Sud	France
212	Gronberg, Jeff	Lawrence Livermore National Laboratory	USA
213	Grossman, Yuval	Stanford Linear Accelerator Center	USA
214	Grosso-Pilcher, Carla	University of Chicago	USA
215	Groysman, Yuriy	Lawrence Berkeley National Laboratory	USA
216	Gutierrez, Gaston	Fermi National Accelerator Laboratory	USA
217	Haas, Andrew	University of Washington	USA
218	Hadley, Nick	University of Maryland	USA
219	Haisch, Ulrich	Fermi National Accelerator Laboratory	USA
220	Hanagaki, Kazu	Fermi National Accelerator Laboratory	USA
221	Hara, Kohji	Osaka University	Japan
222	Hardtke, David	Lawrence Berkeley National Laboratory	USA
223	Harr, Robert	Wayne State University	USA
224	Harris, David	American Physical Society	USA
225	Harris, Deborah	Fermi National Accelerator Laboratory	USA
226	Harris, Robert	Fermi National Accelerator Laboratory	USA
227	Hauschild, Michael	CERN	CERN
228	Hauser, Jay	University of California, Los Angeles	USA
229	Hays, Christopher P.	Duke University	USA
230	Hayward, Helen	Liverpool University	UK
231	Hazumi, Masashi	KEK	Japan
232	Heeger, Karsten	Lawrence Berkeley National Laboratory	USA
233	Heinemann, Beate	University of Liverpool	UK
234	Heinemeyer, Sven	Technischen Universitat Munchen	Germany
235	Heintz, Ulrich	Boston University	USA
236	Heltsley, Brian	Cornell University	USA
237	Hemingway, Richard	Carleton University	Canada
238	Herten, Gregor	University of Freiburg	Germany
239	Heuer, Rolf-Dieter	University of Hamburg	Germany
240	Hidaka, Keisho	Tokyo Gakugei University	Japan
241	HIll, Christopher	University of California, Santa Barbara	USA
242	Hill, Richard	Stanford Linear Accelerator Center	USA

243	Hirosky, Robert	University of Virginia	USA
244	Hobbs, John	State Univ. of NY, Stony Brook	USA
245	Hosotani, Yutaka	Osaka University	Japan
246	Hou, George W. S.	Academia Sinica	Taiwan
247	Howcroft, Caius	Cambridge University	UK
248	Hsiung, Yee Bob	National Taiwan University	Taiwan
249	Hughes, Gareth	Lancaster University	UK
250	Huss, Daniel	Inst. de Recherches Subatomiques (IReS)	France
251	Huston, Joey	Michigan State University	USA
252	Hylen, James	Fermi National Accelerator Laboratory	USA
253	Ianni, Aldo	Laboratori Nazionali del Gran Sasso	Italy
254	Igi, Keiji	Kanagawa University	Japan
255	Iijima, Toru	Nagoya University	Japan
256	Ikado, Koji	Waseda University	Japan
257	Inoue, Kunio	Tohoku University	Japan
258	Jackson, Judy	Fermi National Accelerator Laboratory	USA
259	James, Catherine	Fermi National Accelerator Laboratory	USA
260	Jaros, John	Stanford Linear Accelerator Center	USA
261	Jawahery, Hassan	University of Maryland	USA
262	Jenkins, Elizabeth	University of California, San Diego	USA
263	Jensen, Doug	Fermi National Accelerator Laboratory	USA
264	Jensen, Hans	Fermi National Accelerator Laboratory	USA
265	Johnson, Denis	Vrije Universiteit Brussel	Belgium
266	Johnson, Marvin	Fermi National Accelerator Laboratory	USA
267	Jones, Roger	University of Lancaster	UK
268	Jostlein, Hans	Fermi National Accelerator Laboratory	USA
269	Jung, Chang Kee	State Univ. of NY, Stony Brook	USA
270	Juste, Aurelio	Fermi National Accelerator Laboratory	USA
271	Kado, Marumi	Lawrence Berkeley National Laboratory	USA
272	Kaefer, Daniela	RWTH Aachen	Germany
273	Kagan, Alex	University of Cincinnati	USA
274	Kang, Hyejoo	Stanford University	USA
275	Kang, Kyungsik	Brown University	USA
276	Karagoz Unel, Muge	Northwestern University	USA
277	Karshon, Uri	Weizmann Institute of Science	Israel
278	Kayser, Boris	Fermi National Accelerator Laboratory	USA
279	Keeler, Richard K.	University of Victoria	Canada
280	Kehoe, Robert	Michigan State University	USA
281	Kent, Steve	Fermi National Accelerator Laboratory	USA
282	Kephart, Robert	Fermi National Accelerator Laboratory	USA
283	Kephart, Thomas	Vanderbilt University	USA
284	Kilminster, Ben	University of Rochester	USA
285	Kim, Doris Yangsoo	Univ. of Illinois, Urbana-Champaign	USA
286	Kim, Minsuk	Kyungpook National University	Korea
287	Kim, Shinhong	University of Tsukuba	Japan
288	Kim, Young-Kee	University of Chicago	USA
289	Kirshner, Robert	Harvard-Smithsonian Cen. for Astro.	USA
290	Klanner, Robert	DESY	Germany
291	Klima, Boaz	Fermi National Accelerator Laboratory	USA

292	Klingenberg, Reiner	University of Dortmund	Germany
293	Koerner, Juergen G.	Universitat Mainz	Germany
294	Koetz, Ulrich	DESY	Germany
295	Komamiya, Sachio	University of Tokyo	Japan
296	Krasny, Mieczyslaw	CNRS, Universite Paris VI	France
297	Kretzer, Stefan	Brookhaven National Laboratory	USA
298	Kroll, Joseph	University of Pennsylvania	USA
299	Kronfeld, Andreas	Fermi National Accelerator Laboratory	USA
300	Kruecker, Dirk	DESY	Germany
301	Kulasiri, Ratnappuli Luminda	University of Cincinnati	USA
302	Kuno, Yoshitaka	Osaka University	Japan
303	Kutschke, Rob	Fermi National Accelerator Laboratory	USA
304	Lach, Theodore	Lucent Technologies	USA
305	Lam, Harry C. S.	McGill University	Canada
306	Lammel, Stephan	Fermi National Accelerator Laboratory	USA
307	Lanceri, Livio	INFN, Trieste	Italy
308	Landsberg, Greg	Brown University	USA
309	Lane, Kenneth	Boston University	USA
310	Larios, Francisco	CINVESTAV	Mexico
311	Le Diberder, Francois	Universite de Paris-Sud	France
312	Leder, Gerhard	Austrian Academy of Science	Austria
313	Lee, Sungwon	Texas A&M	USA
314	Lee, William	Florida State University	USA
315	Lee-Franzini, Juliet	Laboratori Nazionali di Frascati	Italy
316	Legendre, Marie	Saclay	France
317	Lepage, Peter	Cornell University	USA
318	Levy, Aharon	Tel Aviv University	Israel
319	Levy, Stephen	University of Chicago	USA
320	Lewis, Jonathan	Fermi National Accelerator Laboratory	USA
321	Li, Bing An	University of Kentucky	USA
322	Li, Hsiang-nan	Academia Sinica	Taiwan
323	Li, Qizong	Fermi National Accelerator Laboratory	USA
324	Li, Selina	Cornell University	USA
325	Libby, James	Stanford Linear Accelerator Center	USA
326	Limentani, Silvia	INFN, Padova	Italy
327	Limon, Peter	Fermi National Accelerator Laboratory	USA
328	Lin, C-J Stephen	Fermi National Accelerator Laboratory	USA
329	Liparteliani, Akaki	Tbilisi State University	Georgia
330	Lipkin, Harry J.	Weizmann Institute of Science	Israel
331	Lipton, Ron	Fermi National Accelerator Laboratory	USA
332	Liss, Tony	Univ. of Illinois, Urbana-Champaign	USA
333	Liu, Stanley	World Scientific	USA
334	Lockyer, Nigel	University of Pennsylvania	USA
335	Lopez, Angel	University of Puerto Rico, Mayaguez	USA
336	Lopez Castro, Gabriel	CINVESTAV	Mexico
337	Louis, William C.	Los Alamos National Laboratory	USA
338	Luci, Claudio	INFN, Roma I	Italy
339	Ludwig, Jens	Albert-Ludwigs Universitat Freiburg	Germany
340	Lusin, Sergei	Fermi National Accelerator Laboratory	USA

341	Luth, Vera	Stanford Linear Accelerator Center	USA
342	Lutz, Pierre	CNRS, Universite Paris VI	France
343	MacFarlane, David	University of California, San Diego	USA
344	Macri, Mario	INFN, Genova	Italy
345	Maiani, Luciano	CERN	CERN
346	Mallik, Usha	University of Iowa	USA
347	Mannel, Thomas	Universitat Karlsruhe	Germany
348	Mansoulie, Bruno	CEA Saclay	France
349	Mantsch, Paul	Fermi National Accelerator Laboratory	USA
350	Maravin, Yurii	Fermi National Accelerator Laboratory	USA
351	Marcellini, Stefano	INFN, Bologna	Italy
352	Martin, Victoria	Northwestern University	USA
353	Martinez, Roberto	National University of Colombia, ICTP	Colombia
354	Maruyama, Takasumi	University of Chicago	USA
355	Matteuzzi, Clara	Universita di Milano-Bicocca	Italy
356	Mazzucato, Edoardo	CEA Saclay	France
357	McBride, Patricia	Fermi National Accelerator Laboratory	USA
358	Meder, David	Universitat Mainz	Germany
359	Melanson, Harry	Fermi National Accelerator Laboratory	USA
360	Mellado, Bruce	University of Wisconsin, Madison	USA
361	Melnikov, Kirill	University of Hawaii	USA
362	Mendez, Hector	University of Puerto Rico, Mayaguez	USA
363	Merkel, Petra	Fermi National Accelerator Laboratory	USA
364	Messina, Andrea	University of Rome	Italy
365	Meyer, Holger	Fermi National Accelerator Laboratory	USA
366	Miao, Ting	Fermi National Accelerator Laboratory	USA
367	Mikuz, Marko	Jozef Stefan Institute	Slovenia
368	Miller, David J.	University College London	UK
369	Miller, Steven	Superconductor Week	USA
370	Mills, Corrinne	University of California, Santa Barbara	USA
371	Mitchell, Ryan	University of Tennessee	USA
372	Mnich, Joachim	RWTH Aachen	Germany
373	Mohr, Brian	University of California, Los Angeles	USA
374	Mommsen, Remigius	University of California, Irvine	USA
375	Montgomery, Hugh	Fermi National Accelerator Laboratory	USA
376	Morelos, Antonio	Univ. Autonoma de San Luis Potosi	Mexico
377	Morita, Youhei	KEK	Japan
378	Morozumi, Takuya	Hiroshima University	Japan
379	Moshe, Moshe	Technion-Israel Institute of Technology	Israel
380	Mrenna, Stephen	Fermi National Accelerator Laboratory	USA
381	Muciaccia, Mariateresa	INFN, Bari	Italy
382	Mukherjee, Asmita	Universitat Dortmund	Germany
383	Mulders, Martijn	Fermi National Accelerator Laboratory	USA
384	Mulhearn, Michael	Massachusetts Institute of Technology	USA
385	Murat, Pavel	Fermi National Accelerator Laboratory	USA
386	Murayama, Hitoshi	University of California, Berkeley	USA
387	Muresan, Raluca	Niels Bohr Institute	Denmark
388	Nachtman, Jane	Fermi National Accelerator Laboratory	USA
389	Nadolsky, Pavel	Southern Methodist University	USA

390	Nakamura, Kenzo	KEK	Japan
391	Nakano, Itsuo	Okayama University	Japan
392	Nakao, Mikihiko	KEK	Japan
393	Nambu, Yoichiro	University of Chicago	USA
394	Napier, Austin	Tufts University	USA
395	Nappi, Aniello	INFN, Perugia	Italy
396	Narain, Meenakshi	Boston University	USA
397	Nasretdinov, Kamil	Institute of Nuclear Physics	Uzbekistan
398	Nauenberg, Uriel	University of Colorado	USA
399	Nelson, Charles	State Univ. of NY, Binghamton	USA
400	Neuffer, David	Fermi National Accelerator Laboratory	USA
401	Nevzorov, Roman	ITEP, Moscow	Russia
402	Newman, Harvey	California Institute of Technology	USA
403	Newman, Paul R.	DESY	UK
404	Newman-Holmes, Catherine	Fermi National Accelerator Laboratory	USA
405	Newsom, Charles	University of Iowa	USA
406	Niczyporuk, Bogdan	Jefferson Lab	USA
407	Niebuhr, Carsten	DESY	Germany
408	Nielsen, Jason	Lawrence Berkeley National Laboratory	USA
409	Nishikawa, Koichiro	Kyoto University	Japan
410	Oakes, Robert	Northwestern University	USA
411	O'Fallon, John R.	U. S. Department of Energy	USA
412	Oh, Sunkun	Kunkuk University	Korea
413	Ohska, Tokio Kenneth	KEK	Japan
414	Olness, Fred	Southern Methodist University	USA
415	Olsen, James	Princeton University	USA
416	Olsen, Stephen	University of Hawaii	USA
417	Ootani, Wataru	University of Tokyo	Japan
418	Orava, Risto	University of Helsinki	Finland
419	Orejudos, William Gilbert	Lawrence Berkeley National Laboratory	USA
420	Oshima, Nobu	Fermi National Accelerator Laboratory	USA
421	Owens, Jeff	Florida State University	USA
422	Padilla, Cristobal	CERN	CERN
423	Pakvasa, Sandip	University of Hawaii	USA
424	Pan, Yibin	University of Wisconsin, Madison	USA
425	Papadimitriou, Vaia	Texas Tech University	USA
426	Parashar, Neeti	Louisiana Tech	USA
427	Parke, Stephen	Fermi National Accelerator Laboratory	USA
428	Parua, Nirmalya	State Univ. of NY, Stony Brook	USA
429	Pascoli, Silvia	University of California, Los Angeles	USA
430	Paul, Stephan	Technischen Universitat Munchen	Germany
431	Pauletta, Giovanni	University of Udine	Italy
432	Peach, K. J.	Rutherford Appleton Laboratory	UK
433	Peccei, Roberto	University of California, Los Angeles	USA
434	Peoples, John	Fermi National Accelerator Laboratory	USA
435	Perez, Emmanuelle	CEA Saclay	France
436	Perez, Miguel Angel	CINVESTAV	Mexico
437	Perez Martinez, Aurora	Instituto de Cibernetica, ICTP	Cuba
438	Peroni, Cristiana	INFN, Torino	Italy

439	Peruzzi Piccolo, Ida	Laboratori Nazionali di Frascati	Italy
440	Petrarca, Silvano	INFN, Roma I	Italy
441	Petyt, David	University of Minnesota	USA
442	Pietschmann, Herbert	University of Vienna	Austria
443	Piilonen, Leo	Virginia Tech	USA
444	Pilcher, James	University of Chicago	USA
445	Pitts, Kevin	Univ. of Illinois, Urbana-Champaign	USA
446	Pitzl, Daniel	DESY	Germany
447	Podobnik, Tomaz	University of Ljubljana	Slovenia
448	Ponce Gutierrez, William	Universidad de Antioquia, ICTP	Colombia
449	Pooth, Oliver	RWTH Aachen	Germany
450	Pordes, Stephen	Fermi National Accelerator Laboratory	USA
451	Pratt, T. S.	Liverpool University	UK
452	Predazzi, Enrico	INFN, Torino	Italy
453	Prell, Soeren	Iowa State University	USA
454	Prepost, Richard	University of Wisconsin, Madison	USA
455	Qi, Xiangrong	Fermi National Accelerator Laboratory	USA
456	Qian, Jianming	University of Michigan	USA
457	Quigg, Chris	Fermi National Accelerator Laboratory	USA
458	Quinn, Breese	Fermi National Accelerator Laboratory	USA
459	Ragazzi, Stefano	INFN, Milano	Italy
460	Raja, Rajendran	Fermi National Accelerator Laboratory	USA
461	Ramberg, Erik	Fermi National Accelerator Laboratory	USA
462	Ramirez, Eduardo	University of Puerto Rico, Mayaguez	USA
463	Rani, K. Jyotshna	Tata Institute of Fundamental Research	India
464	Rapidis, Petros	Fermi National Accelerator Laboratory	USA
465	Rapin, Divic	Ecole de Physique	Switzerland
466	Ratoff, Peter	University of Lancaster	UK
467	Raven, Gerhard	NIKHEF	Netherlands
468	Ray, Heather Lynn	University of Michigan	USA
469	Recksiegel, Stefan	Technische Universitaet Muenchen	Germany
470	Reed, Daniel	Univ. of Illinois, Urbana-Champaign	USA
471	Reidy, James	U. S. Department of Energy	USA
472	Repko, Wayne	Michigan State University	USA
473	Repond, Jose	Argonne National Laboratory	USA
474	Reyna, David	Argonne National Laboratory	USA
475	Riazuddin, Riaz	Quaid-i-Azam University, ICTP	Pakistan
476	Richard, Francois	Universite de Paris-Sud	France
477	Riesselmann, Kurt	Fermi National Accelerator Laboratory	USA
478	Ritchie, Jack	University of Texas	USA
479	Riu, Imma	University of Geneva	Switzerland
480	Roberts, B. Lee	Boston University	USA
481	Rodriguez Lopez, Jairo Alexis	National Univ. of Colombia, ICTP	Colombia
482	Rolli, Simona	Tufts University	USA
483	Romano, Francesco	INFN, Bari	Italy
484	Roodman, Aaron	Stanford Linear Accelerator Center	USA
485	Rosen, Jerome	Northwestern University	USA
486	Rosen, Peter	U. S. Department of Energy	USA
487	Rosenfeld, Rogerio	Universidade Estadual Paulista	Brazil

488	Rosner, Jonathon	University of Chicago	USA
489	Rott, Carsten	Purdue University	USA
490	Roulet, Esteban	Centro Atomico Bariloche	Argentina
491	Rovelli, Tiziano	INFN, Bologna	Italy
492	Roy, Probir	Tata Institute of Fundamental Research	India
493	Rubinstein, Roy	Fermi National Accelerator Laboratory	USA
494	Ruchti, Randy	University of Notre Dame	USA
495	Rumerio, Paolo	Northwestern University	USA
496	Saarikko, Heimo	University of Helsinki	Finland
497	Sacquin, Yves	Palais-Decouverte	France
498	Sakai, Yoshihide	KEK	Japan
499	Sala, Silvano	INFN, Milano	Italy
500	Sanders, Michiel	University of Manchester	UK
501	Savard, Pierre	University of Toronto	Canada
502	Schellman, Heidi	Northwestern University	USA
503	Schietinger, Thomas	Universite de Lausanne	Switzerland
504	Schlenstedt, Stefan	DESY	Germany
505	Schmitt, Michael	Northwestern University	USA
506	Schneekloth, Uwe	DESY	Germany
507	Schroeder, Henning	Universitat Rostock	Germany
508	Schubert, Klaus	Technical University Dresden	Germany
509	Schuler, Peter	DESY	Germany
510	Schwartz, Alan	University of Cincinnati	USA
511	Sciutto, Sergio	Universidad Nacional de La Plata	Argentina
512	Scott, Adam	University of California, Santa Barbara	USA
513	Scuri, Fabrizio	INFN, Pisa	Italy
514	Sefkow, Feliz	DESY	Germany
515	Seife, Charles	Science Magazine	USA
516	Seth, Kamal	Northwestern University	USA
517	Sevior, Martin	University of Melbourne	Australia
518	Shamim, Mansoora	Kansas State University	USA
519	Sharma, Vivek	University of California, San Diego	USA
520	Sheldon, Paul	Vanderbilt University	USA
521	Shepard, Paul F.	University of Pittsburgh	USA
522	Sher, Marc	College of William and Mary	USA
523	Shibata, Toshi-Aki	Tokyo Institute of Technology	Japan
524	Shipsey, Ian	Purdue University	USA
525	Shivpuri, R. K.	Delhi University	India
526	Siegrist, James	Lawrence Berkeley National Laboratory	USA
527	Simone, James	Fermi National Accelerator Laboratory	USA
528	Sinervo, Pekka	University of Toronto	Canada
529	Sirlin, Alberto	New York University	USA
530	Skuja, Andris	University of Maryland	USA
531	Skwarnicki, Tomasz	Syracuse University	USA
532	Slaughter, Jean	Fermi National Accelerator Laboratory	USA
533	Smirnov, Alexei	Abdus Salam Int'l. Cen. for Theor. Physics	Russia
534	Snider, Rick	Fermi National Accelerator Laboratory	USA
535	Snow, Gregory	University of Nebraska	USA
536	Solomey, Nickolas	Illinois Institute of Technology	USA

537	Son, Dongchul	Kyungpook National University	Korea
538	South, David	DESY	Germany
539	Spanier, Stefan	University of Tennessee	USA
540	Stamenov, Dimiter Borisov	Inst. for Nucl. Research & Nucl. Energy	Bulgaria
541	Stasto, Anna	DESY	Germany
542	Stewart, Iain	Massachusetts Institute of Technology	USA
543	Stone, Sheldon	Syracuse University	USA
544	Strang, Michael A.	University of Texas, Arlington	USA
545	Strohmer, Raimund	LMU Munich	Germany
546	Stuart, David	University of California, Santa Barbara	USA
547	Stutte, Linda	Fermi National Accelerator Laboratory	USA
548	Sugawara, Hirotaka	University of Hawaii	USA
549	Sugimoto, Shojiro	KEK	Japan
550	Szleper, Michal	Northwestern University	USA
551	Takayama, Fumihiro	University of California, Irvine	USA
552	Tanaka, Katsumi	Ohio State University	USA
553	Tanaka, Masashi	Argonne National Laboratory	USA
554	Tanaka, Reisaburo	Okayama University	Japan
555	Tanimoto, Naho	Okayama University	Japan
556	Thorne, Robert S.	University of Cambridge	UK
557	Tigner, Maury	Cornell University	USA
558	Timmermans, Jan	CERN	CERN
559	Toki, Walter	Colorado State University	USA
560	Tomalin, Ian R.	Rutherford Appleton Laboratory	UK
561	Tomoto, Makoto	Fermi National Accelerator Laboratory	USA
562	Tonelli, Diego	INFN, Pisa	Italy
563	Totsuka, Yoji	KEK	Japan
564	Tran, Minh-Tam	University of Lausanne	Switzerland
565	Treccani, Michele	University of Pavia	Italy
566	Trischuk, William	University of Toronto	Canada
567	Tschirhart, Robert	Fermi National Accelerator Laboratory	USA
568	Tung, Wu-Ki	Michigan State University	USA
569	Turala, Michal	Institute of Nuclear Physics, Krakow	Poland
570	Tzanakos, George	University of Athens	Greece
571	Vachon, Brigitte	Fermi National Accelerator Laboratory	USA
572	van den Bergen, Mieke	Interactions	Netherlands
573	van Middelkoop, Ger	NIKHEF	Netherlands
574	Varelas, Niko	University of Illinois, Chicago	USA
575	Velasco, Mayda	Northwestern University	USA
576	Verde, Licia	Princeton University	USA
577	Vidal, Rick	Fermi National Accelerator Laboratory	USA
578	von Toerne, Eckhard	Kansas State University	USA
579	Wagner, Albrecht	DESY	Germany
580	Wagner, Carlos	Argonne National Laboratory	USA
581	Wahl, Horst	Florida State University	USA
582	Walkowiak, Wolfgang	Universitat Siegen	Germany
583	Wallny, Rainer	University of California, Los Angeles	USA
584	Wang, Gensheng	Case Western Reserve University	USA
585	Wang, Jianchun	Syracuse University	USA

586	Ward, B. F. L.	University of Tennessee	USA
587	Wasserbaech, Steven	Utah Valley State College	USA
588	Waters, David	University College London	UK
589	Watts, Gordon	University of Washington	USA
590	Weber, Michael	Fermi National Accelerator Laboratory	USA
591	Weerts, Harry	Michigan State University	USA
592	Wegner, Martin	RWTH Aachen	Germany
593	Wester, William	Fermi National Accelerator Laboratory	USA
594	White, Andy	University of Texas, Arlington	USA
595	White, Herman	Fermi National Accelerator Laboratory	USA
596	Whitmore, James	National Science Foundation	USA
597	Whitmore, Julie	Fermi National Accelerator Laboratory	USA
598	Wicklund, Barry	Argonne National Laboratory	USA
599	Wilkinson, Guy	University of Oxford	UK
600	Wilson, Michael	University of California, Santa Cruz	USA
601	Wilson, Peter	Fermi National Accelerator Laboratory	USA
602	Wimpenny, Stephen	University of California, Riverside	USA
603	Witherell, Michael S.	Fermi National Accelerator Laboratory	USA
604	Witten, Edward	Institute for Advanced Study	USA
605	Wittlin, Jodi	Boston University	USA
606	Wojcicki, Stanley	Stanford University	USA
607	Wolbers, Stephen	Fermi National Accelerator Laboratory	USA
608	Womersley, John	Fermi National Accelerator Laboratory	USA
609	Won, Eunil	Harvard University	USA
610	Worcester, Matthew Peter	University of California, Los Angeles	USA
611	Worm, Steven	Rutgers University	USA
612	Wormser, Guy	IN2P3	France
613	Wright, Allison	Nature Publishing Group	UK
614	Wright, Douglas	Lawrence Livermore National Laboratory	USA
615	Wu, San Lan	University of Wisconsin, Madison	USA
616	Wyatt, Terry	University of Manchester	UK
617	Yabsley, Bruce	Virginia Tech	USA
618	Yagil, Avi	Fermi National Accelerator Laboratory	USA
619	Yamada, Ryuji	Fermi National Accelerator Laboratory	USA
620	Yamamoto, Hitoshi	Tohoku University	Japan
621	Yamanaka, Taku	Osaka University	Japan
622	Yamashita, Satoru	University of Tokyo	Japan
623	Yamazaki, Yuji	KEK	Japan
624	Yang, Haijun	Universitiy of Michigan	USA
625	Yang, Un-Ki	University of Chicago	USA
626	Yarba, Victor	Fermi National Accelerator Laboratory	USA
627	Yasuda, Taka	Fermi National Accelerator Laboratory	USA
628	Ye, Shuwei	University of Texas, Dallas	USA
629	Yeh, Gong Ping	Fermi National Accelerator Laboratory	USA
630	Yen, Yevgenij	Bergische Universitat Wuppertal	Germany
631	Yoh, John	Fermi National Accelerator Laboratory	USA
632	Yoshida, Rikutaro	Argonne National Laboratory	USA
633	Yu, Hoi-Lai	Academia Sinica	Taiwan
634	Yu, Shin-Shan	University of Pennsylvania	USA

635	Yuta, Haruo	Aomori University	Japan
636	Zeitnitz, Christian	Universitat Mainz	Germany
637	Zeller, Michael	Yale University	USA
638	Zeng, Qinglin	Colorado State University	USA
639	Zeyrek, Mehmet	Middle East Technical University	Turkey
640	Zhang, Lin	Texas Tech University	USA
641	Zheng, Hai	California Institute of Technology	USA
642	Zhu, Jun-Jie	University of Maryland	USA
643	Zucchelli, Stefano	INFN, Bologna	Italy
644	Zutshi, Vishnu	Northern Illinois University	USA
645	Zwaska, Bob	University of Texas	USA

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