

■ Foreword

■ I Introductory talks

- 3 John Ellis
Today's view on strangeness
- 11 Jean-Marc Le Goff
Strange and gluonic contributions to the nucleon spin
- 17 Kees de Jager
Electromagnetic form factors of the nucleon
- 23 P.A.M. Guichon
Two photon effects in electron scattering
- 29 B. Pasquini, M. Vanderhaeghen
Single spin asymmetries in elastic electron-nucleon scattering
- 33 M. Gorchtein, P.A.M. Guichon, M. Vanderhaeghen
Transverse single spin asymmetry in elastic electron-proton scattering
- 35 Sebastian Baunack, for the A4-collaboration
Transverse spin asymmetry at the A4 experiment
- 39 P.M. King for the G^0 Collaboration
Normal beam spin asymmetries during the G^0 forward angle measurement

■ II Form factors and two-photon effects

■ III Weak form factors of the nucleon

□ III-1/PV experiment

- 43 Elizabeth Beise
The axial form factor of the nucleon
- 47 F.E. Maas, for the A4-Collaboration
Parity violating electron scattering at the MAMI facility in Mainz
- 51 Damon T. Spayde
Updated results from the SAMPLE experiment
- 55 Richard S. Holmes
The next generation HAPPEX experiments
- 59 Philip G. Roos
The G_0 experiment: Parity violation in e-N elastic scattering
- 65 Luigi Capozza, for the A4 Collaboration
Study of the parity violation in the $\Delta(1232)$ region
- 67 Stephen F. Pate
Don't forget to measure Δ_s
- III-2/Theory
- 73 Damir Becirevic
Getting to grips with hadrons

- 79 D.B. Leinweber, S. Boinepalli,
A.W. Thomas, A.G. Williams,
R.D. Young, J.B. Zhang, J.M. Zanotti
**Systematic uncertainties in the precise
determination of the strangeness
magnetic moment of the nucleon**
- 85 J.T. Londergan
**Current status
of parton charge symmetry**
- 89 M.E. Sainio
**Pion-nucleon interaction and the
strangeness content of the nucleon**
- 93 A. Silva, D. Urbano, H.-C. Kim, K. Goeke
**Strange form factors of the nucleon
in the chiral quark-soliton model**
- 97 Bastian Kubis
**Strange form factors
and Chiral Perturbation Theory**
- 101 Stephen R. Cotanch
**Time-like compton scattering and the
Bethe-Heitler process**
- 103 G.W. Carter, E.M. Henley
**Corrections to the nuclear axial vector
coupling in a nuclear medium**
- 105 Hee-Jung Lee, Chang Ho Hyun,
Chang-Hwan Lee, Hyun-Chul Kim
**Strangeness-conserving effective weak
chiral Lagrangian**

■ IV Experimental techniques in PV electron scattering

□ IV-1/Beam asymmetry

- 109 Gordon D. Cates, Jr.
Overview of laser systematics
- 115 Douglas H. Beck, Mark L. Pitt
**Beam optics for electron scattering
parity-violation experiments**
- 119 Kazutaka Nakahara
**G0 beam quality and multiple linear
regression corrections**

□ IV-2/Polarimetry

- 123 E. Chudakov, V. Luppov
**Møller polarimetry
with atomic hydrogen targets**
- 127 Yoshio Imai, for the A4 collaboration
**Progress report on the A4 compton
backscattering polarimeter**
- 129 Christoph Weinrich,
for the A4 Collaboration
**The transmission Compton polarimeter
of the A4 experiment**
- 131 Jürgen Diefenbach
**Stabilization system of the laser system
of the A4 Compton backscattering
polarimeter**
- 133 Jeong Han Lee
**Electron beam line design of A4
Compton backscattering polarimeter**

□ IV-3/Detection

- 137 J. Van De Wiele, M. Morlet
**Background subtraction
in parity violation experiments**
- 141 Boris Gläser, for the A4 Collaboration
**Redesign of the A4 calorimeter for the
measurement at backward angles**
- 143 Steven E. Williamson,
for the G⁰ Collaboration
**Performance of the G⁰ superconducting
Magnet System**
- 145 Benoît Guillon, for the G⁰ collaboration
**Cherenkov counter for the G⁰ backward
angle measurements**
- 147 L. Bimbot, for the G⁰ Collaboration
**A bin-per-bin dead-time control
technique for time-of-flight
measurements in the G⁰ experiment:
the differential buddy**

**■ V Hadronic structure . . .
and more**

- 151 Antonin Vacheret, David Lhuillier,
representing the E-158 Collaboration
**A precise measurement of $\sin^2\theta_W$
at low Q^2 in Møller scattering**
- 155 Gregory R. Smith,
for the Qweak Collaboration
**Qweak: A precision measurement
of the proton's weak charge**
- 159 Klaus H. Grimm,
for the Qweak Collaboration
The qweak tracking system
- 161 Kevin S. McFarland
**Neutral currents and strangeness of the
nucleon from the NuTeV experiment**
- V-2/PV in nuclear systems
- 167 C.J. Horowitz
Parity violation in astrophysics
- 171 B. Desplanques
Parity violation in nuclear systems
- 175 Efsthios Stiliaris
Parity violation in nuclear systems
- 179 C.H. Hyun, C.-P. Liu, B. Desplanques
**Parity violating asymmetry
in $\gamma + d \rightarrow n + p$ at low energy**
- V-3/Neutrino beam
- 183 A. Blondel
Precision physics at a neutrino factory
- 187 Kevin S. McFarland
The MINERvA experiment at FNAL
-
- VI Concluding talks**
- 191 Krishna S. Kumar
**Frontiers of polarized electron
scattering experiments**
- 197 M.J. Ramsey-Musolf
**Parity-violation with electrons:
Theoretical perspectives**
- 205 R.D. McKeown
Workshop summary