

## Contents

Preface	v
Organizing Committees	vii
Opening Address	1
<b>Z. P. Zheng</b>	
Opening Talk: Medium Energy Physics in the 21st Century	3
<b>L. S. Kisslinger</b>	
<b>Hadronic Structure and <math>h-h</math> and <math>h-A</math> Interactions</b>	
Quarks in Hadrons and Nuclei	13
<b>A. Faessler</b>	
Nuclear Transparency in High Energy Reactions	32
<b>K. Yazali, A. Kohama and R. Seki</b>	
Excessive Mesons in Nuclei	43
S. WU and <b>Y. J. Yao</b>	
$0^+$ Mesons and Glueball Spectroscopy	51
<b>D. V. Bugg</b>	
Search for the Pentaquark and $H$ Dibaryon	62
<b>D. Ashery</b>	
Dimuon Production in Proton-Nucleus Interactions	75
<b>J. C. Peng</b>	
A Modified Quark-Quark Interaction	91
<b>P. N. Shen, Y. W. Yu, Z. Y. Zhang and L. R. Dai</b>	
Recent Pion-Scattering Measurements on $^3\text{H}$ and $^3\text{He}$	96
<b>B. L. Berman et al. (UCLA-GWU-ACU-LAMPF Collaboration)</b>	
Valence and Sea Quark Polarizations in the Proton	101
X. Song	

A New Quark Confining Potential from Non-Topological Soliton Model <b>W. H. Ma</b>	106
Dirac Optical Potentials from Inversion <b>H. Huber and H. Leeb</b>	111
Nucleon-Nucleon Correlation Effects in Relativistic Approach Z. Y. Ma, <b>B. Q. Chen, H. L. Shi and D. C. Feng</b>	116
Pion-Nucleus Reactions as Test for a Microscopic Transport Model <b>A. Engel, W. Cassing, U. Mosel, M. Schaefer and G. Wolf</b>	121
Hyperon-Nucleon Interaction in the $SU_6$ Quark Model Y. Fujiwara, C. Nakamoto <b>and Y. Suzuki</b>	124
The Measurement of Nuclear Medium Effects with $K^+$ <b>E. Piasezky</b>	129
Observation of Radiative Muon Capture on the Proton <b>P. Depommier et al. (RMC Collaboration)</b>	135
The Radiative Decays of Vector Mesons in Cloudy Bag Model with c.m. Correction <b>Y. S. Zhong and T. S. Cheng</b>	140
Improvement of the Parton Evolution Model in the Small $x$ Region <b>G. L. Li, J. P. Shen and M. J. Yu</b>	144
Relativistic Formulation for the Hardcore Effect in a Many-Body System <b>Q. R. Zhang</b>	149
Antiproton-Nucleus Scatterings at Intermediate Energies <b>Y. G. Li</b>	154
The Strong Interaction Shift and Width of the Ground State in Pionic Hydrogen and Deuterium <b>D. Sigg et al.</b>	157
Comprehensive Calculations of the $K^+$ Scattering on ${}^6\text{Li}$ , ${}^{12}\text{C}$ , ${}^{28}\text{Si}$ and ${}^{40}\text{Ca}$ <b>C. H. Cai, P. Z. Ning and H. Shen</b>	162

Quasinuclear $NN$ Bound States	167
<b><i>Y. P. Yan, T. Gutsche, R. Thierauf and A. Faessler</i></b>	
Neutrinoless Double $\beta$ Decay and Nucleon Correlation	170
<b><i>H. F. Wu</i></b>	
$\rho^0, \omega$ Multi-pi Decay and $\rho^0$ - $\omega$ Mixing Effect	175
<b><i>L. G. Liu</i></b>	
Study of Heavy Quarkonium and Hydrogenlike Mesons Based on a Screened Potential Model	178
<b><i>Y. B. Dong and Y. W. Yu</i></b>	
The Representation Transformation of the Multiquark Wave Functions	181
<b><i>J. L. Ping, F. Wang and T. Goldman</i></b>	
From Baryon Interaction to Dibaryons	184
<b><i>F. Wang, J. L. Ping, G. H. Wu, L. J. Teng and T. Goldman</i></b>	
Equilibrium Conditions between Liquid Phase and Gaseous Phase in Nuclear Matter	187
<b><i>G. T. Zheng</i></b>	
<b>QCD Theory and its Application</b>	
Sea-Quark Distributions and the QCD Vacuum	193
<b><i>L. S. Kisslinger and J. Hong</i></b>	
Hadrons in the NJL Model	200
<b><i>H. Reinhardt</i></b>	
Chiral Symmetry in Nuclear Physics	212
<b><i>M. Rho</i></b>	
Dual Ginzburg-Landau Theory for Quark Confinement and Dynamical Chiral-Symmetry Breaking	227
<b><i>H. Toki, H. Suganuma, S. Sasaki and H. Ichie</i></b>	
Heavy Flavor Physics Results from CLEO	235
<b><i>G. Moneti</i></b>	

Charm Meson Decays and the Axial Vector Coupling of Constituent Quarks	250
<i>K. T. Chao and N. G. Chen</i>	
New Results on $J/\psi$ and $\psi'$ Decays from BES	260
<i>J. Li</i>	
Chiral Corrections to the Goldberger–Treiman Relation	271
<i>S. F. Lee and Y. C. Lin</i>	
Parton Distributions in Nuclei	276
<i>S. Kumano</i>	
Calculation of Phase Diagram of SU(2)-Higgs System	281
<i>B. S. Liu and X. T. Zheng</i>	
Off-Shell Electromagnetic Form Factors of the Nucleon in Chiral Perturbation Theory	286
<i>J. W. Bos and J. H. Koch</i>	
Quantum Chromodynamics with Massive Gluons	289
<i>J. C. S. u</i>	
The Relation between Instantons and Nucleon Structure	295
<i>X. F. Lü</i>	
Parton Sum Rules and Nucleon Structure Functions	298
<i>B. Q. Ma</i>	
On the Electroweak Transition at Heat and Dense Condition	301
<i>D. F. Hou and J. R. Li</i>	
<b>Heavy Ion Collision</b>	
Exploring Dense Nuclear Matter with Nuclear Collisions	307
<i>B. A. Cole and W. A. Zajc</i>	
<b>QCD Phase Transition in Hot Hadronic Matter</b>	<b>331</b>
<i>B. J. Schaefer and H. J. Pirner</i>	
Chiral Restoration in Heavy Ion Collisions	343
<i>C. M. Ko and G. Q. Li</i>	

Present Status in the Search for the Quark-Gluon Plasma <b>C. Y. Wong</b>	358
Studies on the Relativistic Heavy Ion Collisions with Self-Consistent RBUU *Approach Z. X. Li, G. <b>J. Mao</b> and Y. Z. Zhuo	373
Some $\pi$ -Interferometry Analysis in High Energy $A$ - $A$ Collisions <b>W. Q. Chao</b>	378
Pion at Finite Temperature <b>P. Z. Bi</b>	383
Phenomenological Analysis of $J/\psi$ Suppression in $h$ - $A$ Processes <b>W. Q. Chao</b> and <b>B. Liu</b>	388
Dielectric Model for $e^+e^-$ Puzzle in Heavy Ion Collisions <b>P. Tang, J. W. Zhang and C. S. Wang</b>	393
The Shape of Detected Actual Total High-Energy Photon Spectrum as a Possible Signature of the Quark-Gluon Plasma <b>H. B. Ai</b> and <b>B. S. Zhou</b>	<b>398</b>
Medium Effects on the $NN$ Scattering Cross Section in Heavy Ion Collisions G. <b>J. Mao</b> , Z. X. <b>Li</b> and Y. Z. <b>Zhuo</b>	403
On Conditional Moments in Nuclear <b>Fragmentation</b> at High Energy <b>F. H. Liu</b>	406
The Transverse Polarization of $\Lambda^0$ Produced in the Collisions of $S+Pb$ at Beam Energy of 200 GeV per Nucleon Y. X. Ye and N. <b>Wu</b>	<b>409</b>
Microstrip Silicon Detector – The Present Status and Application at DELPHI and CDF <b>L. Yu</b>	412
Summary Talk <b>A. Faessler</b>	415
List of Participants	433
Scientific Program	441