

C O N T E N T S

Preface	vii
St.D. Glazek	
<i>Program of the workshop</i>	
L. Susskind and M. Burkardt	
A model of mesons based on χSB in the light-front frame	5
K.G. Wilson and D.G. Robertson	
Light-front QCD and the Constituent Quark Model	15
T.-M. Yan and T.S. Walhout	
Heavy quark symmetry and chiral dynamics	29
H.J. Weber	
Nucleon structure functions and form factors in the Constituent Quark Model on the light-cone	41
R.J. Perry	
A naive confining potential	56
J. Bartels	
Low-x physics in deep inelastic scattering and the Regge limit in QCD	71
L.N. Lipatov and A. Berera	
Multi-color QCD and exactly solvable lattice theories	84
G. McCartor	
The vacuum in the light-cone representation	95
A. Kalloniatis	
A paradigm for solving the QCD zero mode problem in DLCQ	101
BJ Van de Sande	
Spontaneous symmetry breaking in light-front field theory	106
D. Robertson	
Light-cone quantization of electrodynamics	111
T. Heinzl	
Light-front quantization of gauge theories in a finite volume	117
J.P. Vary, T.J. Fields and H.J. Pirner	
Massive Schwinger model for small fermion mass	122

D. Wyler	127
Radronic matrix elements	
A. Khodjamirian and R. Riickl	
<i>QCD sum rules for heavy meson form factors</i>	131
A. Harindranath	
<i>Parton model from field theory via light-front current algebra</i>	139
L. Susskind and P. Griffin	
<i>Partons and black holes</i>	144
K.G. Wilson and M. Brisudova	
<i>xSB and light-front QCD</i>	166
M. Stingl	
<i>Systematic extended iterative solution for QCD</i>	182
J.M. Namyslowski	
<i>Condensates and confinement in QCD vertex functions</i>	188
R. Soldati	
<i>The Mandelstam-Leibbrandt prescription and DLCQ</i>	193
T. Walhout	
<i>Renormalization in an invariant light front picture</i>	198
C.-R. Ji	
<i>Self-energies and rotational symmetry</i>	203
St.D. Glazek	
<i>Similarity renormalization scheme</i>	208
A. Szczepaniak	
<i>Constituent quark structure</i>	213
N. Lijterink and B.L.G. Bakker	
<i>Feynman diagrams and light-cone time ordered diagrams</i>	218
S. Pinsky	
<i>Topology and confinement in light-front QCD</i>	223
A.Yu. Dubin	
<i>Light cone dynamics of the QCD string with quarks</i>	228
M. Burkardt	
<i>How to measure the $Q\bar{Q}$ potential in a light-front calculation</i>	233

P. Griffin <i>Light-front Hamiltonian for transverse lattice QCD</i>	240
C. Martin Gauge invariant variables for $SU(2)$ <i>Yang-Mills theory</i>	246
V.A. Karmanov <i>Explicitly covariant light-front dynamics and deuteron</i>	251
J.F. Mathiot <i>Meson Exchange Currents and electrodisintegmtion of the deuteron in the light-front dynamics</i>	256
A. Smirnov <i>Relativistic covariance and light-front electromagnetic vertex of a bound system</i>	262
Yu. Uzikov <i>D($e \downarrow$ ep)N* reaction and the NW-structure of the deuteron</i>	267
E. Prokhvatilov <i>The limiting transition to the light-front Hamiltonian</i>	272
J. Hiller <i>The electron's anomalous moment in large-alpha QED: a progress report</i>	277
E. Ammons <i>Renormalized light-front Tamm-Dancoff approach to QED and Compton scattering</i>	282
A. Berera Wave Function <i>Properties in a High Energy Process</i>	285
R. Kirschner High-energy scattering <i>with flavour exchange and properties of reggeon interactions in QCD</i>	290
L. Szymanowski <i>Effective action for high-energy scattering in QCD</i>	295
E.A. Bartnik <i>SSB and effective interactions</i>	301
St.D. Glazek Relativistic <i>Nuclear Physics</i>	306
Schedule of Talks and Discussions	311
List of Participants	315