



## CONTENTS

<b>Editors' foreword . . . . .</b>	<b>v</b>
<b>Introduction</b>	<b>VII</b>
<b>M. FIERZ, Die unitären Darstellungen der homogenen Lorentzgruppe . . . . .</b>	<b>1</b>
<b>T. D. LEE, An elementary discussion of possible non-invariance under <math>T</math>, <math>CP</math> and <math>CPT</math> in hyperon decays . . . . .</b>	<b>5</b>
<b>A. MARTIN, Born approximation and dispersion relations for singular potentials</b>	<b>17</b>
<b>O. KLEIN, Boundary conditions and general relativity . . . . .</b>	<b>23</b>
<b>H. J. LIPKIN, Parity and momentum, a prelude to the use of group theory in physics</b>	<b>27</b>
<b>A. DE-SHALIT, Polarization and zeros of the scattering amplitude . . . . .</b>	<b>35</b>
<b>L. VAN HOVE, Strongly interacting particles and the triplet hypothesis . . . . .</b>	<b>44</b>
<b>S. OKUBO AND R. E. MARSHAK, The charge conjugation operation and mixed space-time-internal symmetry groups . . . . .</b>	<b>51</b>
<b>J. D. WALECKA, Giant resonances in nuclei . . . . .</b>	<b>59</b>
<b>R. OPPENHEIMER, The symmetries of forces and states . . . . .</b>	<b>70</b>
<b>Y. YAMAGUCHI, The group <math>S_3</math> and strong interactions . . . . .</b>	<b>78</b>
<b>E. M. HENLEY, Diffraction models for direct nuclear and high energy processes</b>	<b>89</b>
<b>G. KÄLLEN, Intuitive analyticity . . . . .</b>	<b>100</b>
<b>B. T. FELD, A note on baryon masses, mass differences and magnetic moments, according to various symmetry schemes . . . . .</b>	<b>110</b>
<b>T. KINOSHITA AND N. N. KHURI, Some theoretical considerations on the real part of the forward scattering amplitude . . . . .</b>	<b>120</b>
<b>Y. NAMBU, A systematics of hadrons in subnuclear physics . . . . .</b>	<b>133</b>
<b>R. OEHME, A Lorentz covariant supermultiplet scheme for strong interactions</b>	<b>143</b>
<b>R. HAGEDORN, Causality and dispersion relations . . . . .</b>	<b>154</b>
<b>W. HEISENBERG, Die Rolle der phänomenologischen Theorien im System der theoretischen Physik . . . . .</b>	<b>166</b>
<b>L. WOLFENSTEIN, The concept of maximal <math>CP</math> violation . . . . .</b>	<b>170</b>
<b>K. HUANG, The <math>SU_3</math> mass formula . . . . .</b>	<b>177</b>
<b>F. E. LOW, Are wave functions finite? . . . . .</b>	<b>183</b>
<b>B. D'ESPAGNAT, An elementary note about 'mixtures'</b>	<b>185</b>
<b>D. C. PEASLEE, Boson beta decay . . . . .</b>	<b>192</b>
<b>G. WENTZEL, On the localization in classical fields of energy, momentum, and charge</b>	<b>199</b>
<b>L. L. FOLDY, Bottles for neutrons . . . . .</b>	<b>205</b>
<b>K. GOTTFRIED, Multipole radiation . . . . .</b>	<b>210</b>
<b>D. R. INGLIS, Inelastic scattering and associated gamma radiation . . . . .</b>	<b>218</b>

G. C. WICK, On symmetry transformations	231
H. A. BETHE, Shadow scattering by atoms . . . . .	240
J. PRENTKI AND M. VELTMAN, C violation in strong interactions . . . . .	250
H. FESHBACH AND A. K. KERMAN, Studies of hypernuclei with K meson beams	260
W. THIRRING, On the quantum theory of electric conductivity . . . . .	266
J. S. BELL AND M. NAUENBERG, The moral aspect of quantum mechanics . .	279
H. B. G. CASIMIR, Energies and Hamiltonians in magnetic fields . . . . .	287
S. D. DRELL, D. R. SPEISER AND J. WEYERS, Test of role of statistical model at high energies	294
A. PAIS, Vertices with partial SU(6,6) structure . . . . .	302
A. S. GOLDHABER AND M. GOLDHABER, Coherent high energy reactions with nuclei	313
T. E. O. ERICSON, Diffraction scattering of strongly absorbed particles . . .	321
M. CINI, Pion-nucleon scattering and SU(4) spin-isospin symmetry . . . .	330
D. AMATI, A semiclassical approach to the peripheral model	339
P. MORRISON, Time's arrow and external perturbations	347
AUTHOR INDEX	353

