



# CONTENTS

Preface	i
The Tokyo Declaration	vii
<b>Opening Session</b>	
<i>Opening Address</i>	
M. Ito	1
<b>Perspective towards the 21st Century</b>	
<i>Diversity and Unity in Physics Research in the Age of Communication</i>	
H. Ezawa	3
A. M. Harun-ar-rashid <i>Comment</i>	16
H. Ezawa <i>Reply</i>	17
<i>Physics and Physicists for the 21st Century</i>	
C. K. N. Patel	18
S. P. Chia <i>Comment</i>	28
A. M. Harun-ar-rashid <i>Comment</i>	29
<i>The New Challenges for Physics and Physicists</i>	
H. Schopper	30
S. P. Chia <i>Comment</i>	42
<i>Physics and Physical Societies-Report on Questionnaires-</i>	
H. Toki	43
A. M. Harun-ar-rashid <i>Comment</i>	48
<b>Physics Community and International Organizations</b>	
<i>A Report on the UNESCO Physics Action Council</i>	
D. N. Langenberg	49
<i>The International Union of Pure and Applied Physics(IUPAP) and Its Activities</i>	
Y. Yamaguchi	58
<b>Panel Discussion on Regional Physical Societies</b>	
Coordinator:	
J. R. Franz	
T. Kobayashi <i>Introduction - Regional Physical Societies</i>	75

Panelist:

G. Akdeniz	<i>Global Circumstances and the Role of Physics in Balkans</i>	76
C. A. A. de Carvalho	<i>The Past, Present and Future of CLAF</i>	83
M. Konuma	<i>The Association of Asia Pacific Physical Societies (AAPPS)</i>	87
S. P. Chia	<i>Comment</i>	91
N. Kroo	<i>The European Physical Society</i>	92
J. R. Franz	<i>The American Physical Society</i>	100
T. Kobayashi	<i>Comment</i>	102
C. Rhee	<i>Comment</i>	103
J. O. Malo	<i>Physics in Africa</i>	104
V. Sa-yakanit	<i>Comment</i>	111

**Physics Education**

*Activities of UNESCO on University Physics Education*

M. Konuma		113
K. Kitahara	<i>Comment</i>	117
S. P. Chia	<i>Remarks</i>	118
A. M. Harun-ar-rashid	<i>Comment</i>	119
P. K. Buah-Bassuah	<i>Physical Society in Ghana and Physics Education</i>	120

*Physics Education in the United Kingdom*

W.F.Vinen		124
S. P. Chia	<i>Remarks</i>	131
A. M. Harun-ar-rashid	<i>Comment</i>	132

**Panel Discussion on Physics Education for the Next Generation of the Physics Community**

Coordinator:

E. M. Henley  
M. Konuma

Panelist:

Y. Hara	<i>Physics Education for the Next Generation of Physics Community</i>	133
G. Marx		
K.-H. Zhao	<i>Talk at the Panel Discussion on Physics Education</i>	135
T. Inamura	<i>Questions and Comments</i>	138
C. Rhee	<i>Comment</i>	139

## **Physics and Industry**

### *Collaboration between Scientific Societies and Industries*

M. H. Brodsky 141

### *Applicable Physics, Take-off from Applied Physics*

T. Sugano 148

J. L. Robins *Comments and Discussion* 157

## **Panel Discussion on Relations between Physics Community and Industrialized Society**

### Coordinator:

E. Maruyama *Relation between Physical Community and Industrialized Society* 159

### Panelist:

H. G. Danielmeyer *On the Situation of Physics in Germany* 160

C. Hilsum *Physics and Industry* 163

H. Mizuno *Physics and Industry - The Challenge of the 21st Century* 169

C. Rhee *Relation between Physical Community and Industrialized Society* 170

## **Communications in Physics**

### *Research and Academic Telecommunications around the World—A Role for UNESCO—*

I. A. Lerch 179

### *Telecommunications within the World Community of Physicists*

J. C. Sens 194

### *Difficulties Encountered in Publishing Society Journals*

T. Kawakubo 215

D. Kiss *Remarks* 224

## **Panel Discussion on Crisis in Society Journals**

### Coordinator:

S. Kagoshima

T. Kawakubo *Panel Discussion - Crisis in Society Journals* 225

### Panelist:

B. Bederson *Electronic Publishing Activities at APS* 226

I.-T. Cheon *Difficulties in Publishing Korean Physical Society Journals* 229

D. Dao Vong *Status of the Publication of Physical Journals in Vietnam* 235

A. Jones *Crisis in Society Journals* 237

C. Rhee *Comment* 240

## **Physics Community in Global Circumstances**

### *Local Conflicts between Cultures: The Role of Science and the ICTP*

M. Virasoro 241

S. P. Chia *Remarks* 255

A. M. Harun-ar-rashid *Comment* 256

### *The Role of Mexico in the Development of Physics in Latin America*

J. L. Moran-Lopez 257

### *Situation of Physics and Education in Physics in Latvia - Some Problems of Physics in Latvia*

J. Berzins 263

### *Physics in a Developing Country - Malaysia*

S. P. Chia 269

### *My Comments on the Second Asian Forum*

V. Sa-yakanit 275

### *The Role of Physics Research and Education in Taiwan*

W-Y. P. Hwang 277

## **A Special Lecture**

### *Why Do Earthquakes Occur?*

Y. Fukao 285

## **Physics in the Former Soviet Union**

### *Physical Science in Russia under Transition to a Market - Oriented Economy*

G. V. Kozlov 287

### *Past and Present of the Russian Physical Society*

V. V. Mikhailin 316

### *New Era of Physics in the Central Asia*

S. Z. Zainabidinov 320

### *U.S. Assistance to Colleagues in the Former Soviet Union*

E. M. Henley 329

### *Collaboration of Scientists in the Former Soviet Union and Japan*

Y. Ichikawa 332

## **The Roles of Physical Societies in the Changing World**

### *Science and Scientist*

Y. Murakami 337

A. M. Harun-ar-rashid *Comment* 344

## **Panel Discussion on the Role of Physical Societies in the Changing World**

Coordinator:

Y. Ichikawa

H. Kamimura                      *Summary of Panel Discussion*                      345

Panelist:

N. G. Gaggioli                      *The Role of Physical Societies in the Changing World*                      347

V. Gribkov                      *Panel-discussion Talk*                      353

C. K. Patel

J. L. Robins                      *The Role of Physical Societies in the Changing World*                      354

I. Strzalkowski                      *The Polish Physical Society and the Role of Physical  
Societies in the Changing World*                      358

G. Tibell                      *The Role of Physical Societies in the Changing World*                      362

S. P. Chia                      *Comment*                      364

C. Rhee                      *Comment*                      365

### **Concluding Remarks**

*Applied Physicists and Their Community*

S. Minami                      367

**Conference Program and List of Participants**                      373

Cover: The United Nations University where the RACIP2 was held.  
photograph courtesy of the United Nations University