

CONTENTS

Opening Remarks

xi

SESSION 1. Discrete Gamma-Ray Sources - I

Chairman: *L. E. Peterson*

Discrete Gamma-Ray Sources ($E < 30$ MeV)	3
<i>V. Schönfelder</i>	
The Discrete Sources of High Gamma-Ray Radiation	17
<i>R. Buccieri</i>	
Discrete Gamma-Ray Sources: Theory	29
<i>M. Salvati</i>	
High-Energy Gamma-Ray Sources Observed by COS-B	43
<i>R. D. Wills, K. Bennett, G. F. Bignami, R. Buccieri, P. Caraveo, N. D'Amico, W. Hermsen, G. Kanbach, G. G. Lichti, J. L. Masnou, H. A. Mayer-Hasselwander, J. A. Paul, B. Sacco and B. N. Swanenburg</i>	
COS-B Measurements of the Spectra of the Crab and Vela Gamma-Ray Sources	49
<i>G. G. Lichti, R. Buccieri, P. Caraveo, G. Gerardi, W. Hermsen, G. Kanbach, J. L. Masnou, H. A. Mayer-Hasselwander, J. A. Paul, B. N. Swanenburg and R. D. Wills</i>	

SESSION 2. Discrete Gamma-Ray Sources - II

Chairman: *B. V. Sreekantan*

Gamma Ray Emission from Supernova Remnants	57
<i>R. Cowsik and S. Sarkar</i>	

New Evidence for Links Between SNOBs and Galactic Gamma-Ray Sources <i>T. Montmerle and C. J. Cesarsky</i>	61
Balloon-Borne Observations of NGC 4151 Using the MISO Telescope <i>F. Perotti, A. Della Ventura, G. Sechi, G. Villa, G. Di Cocco, R. E. Baker, R. C. Butler, A. J. Dean, S. J. Martin and D. Ramsden</i>	67
Ultra High Energy Gamma Rays <i>P. V. Ramana Murthy</i>	71
Cosmic Gamma Ray Line Observations <i>G. Vedrenne</i>	85

SESSION 3. Cosmic Gamma-Ray Lines and Bursts

Chairman: *S. Hayakawa*

Cosmic Gamma-Ray Lines: Theory <i>R. E. Lingenfelter and R. Ramaty</i>	103
50 keV-3 MeV High Resolution Observation of the Galactic Center Region <i>Ph. Durouchoux, D. Boclet, R. Rocchia, F. Albermhe, J. F. Leborgne, G. Vedrenne and J. Marques da Costa</i>	117
Observational Properties of Gamma-Ray Bursts <i>K. Hurley</i>	123
Gamma-Ray Burst Observations by the 3 Satellite Signe Network <i>G. Chambon, K. Hurley, M. Niel, G. Vedrenne, V. M. Zenchenko, A. V. Kuznetsov and I. V. Estulin</i>	141

SESSION 4. Diffuse Galactic Gamma-Ray Sources

Chairman: *G. F. Bignami*

Observations of Diffuse Galactic Gamma Rays <i>G. A. Simpson</i>	147
Large-Scale Structure of the Milky Way, as Observed by COS-B in High-Energy Gamma Rays <i>R. D. Wills</i>	159
The Effect of the Diffuse Gamma Radiation on Pulsars <i>V. Radhakrishnan</i>	163
Origin of Diffuse Galactic Gamma Rays <i>S. Hayakawa</i>	175
Gamma Rays and the Local Origin of Cosmic Rays <i>M. Cassé and J. A. Paul</i>	187

Dynamics of the Galaxy	191
------------------------	-----

S. A. Stephens

SESSION 5. Cosmic-Rays and Extragalactic Gamma-Rays

Chairman: *S. L. Mandelshtam*

Galactic Gamma Rays and the Origin of Cosmic Rays	205
---	-----

R. Cowsik

Longitudinal Distribution of Gamma Rays and the Variation of Magnetic Field in the Galaxy	223
---	-----

S. A. Stephens

"The Europhysics Study Conference on Gamma-Ray Astronomy After COS-B"	227
---	-----

G. F. Bignami

SESSION 6. Techniques and Prospects

Chairman: *M. Oda*

The IHXR80 Hard X-Ray Experiment	241
----------------------------------	-----

P. Ubertini, L. Boccaccini, C. La Padula, M. Mastropietro, G. Medici, R. Patriarca and F. V. Polcaro

The NASA Gamma Ray Observatory (G.R.O.)	247
---	-----

Ph. Durouchoux

The India/Soviet Gamma Ray Astronomy Programme	265
--	-----

S. V. Damle

Background Effects Between 250 km and 1100 km	271
---	-----

D. R. Parsignault

Author Index	275
--------------	-----