

**CLASSICAL AND QUANTUM ASPECTS  
OF GRAVITATION AND COSMOLOGY**

**Proceedings of IAGRG-XVIII**

**February 15 - 17 1996**

**Dedicated to**

**S. CHANDRASEKHAR**

**Edited by**

**G. Date**

**Bala R. Iyer**

## CONTENTS

*Foreword*

*Scientific organising committee*

*Preface*

1. Seeing beauty in the simple and the complex  
Chandrasekhar and general relativity  
*N. Panchapakesan* 1
2. On the black hole trail...  
A personal journey  
*C.V. Vishveshwara* 11
3. Gravitational waves from inspiralling compact binaries  
*B. R. Iyer* 23
4. Data Analysis of gravitational wave signals  
from coalescing binaries  
*R. Balasubramanian* 43
5. Gravitational collapse and cosmic censorship  
*T.P. Singh* 57
6. Aspects of accretion processes on a rotating black hole  
*Sandip Chakrabarti* 77
7. Large scale structure in the universe  
Theory vs observations  
*Dipak Munshi* 93
8. Some non-linear aspects of cosmological structure formation  
*Somnath Bharadwaj* 105
9. Radiative corrections to gravitational coupling of neutrinos  
and neutrino oscillations  
*G.S. Mohanty* 109

10. Topological defects in cosmology <i>Pijush Bhattacharjee</i>	115
11. Generalised Raychaudhuri equations for strings and membranes <i>Sayan Kar</i>	131
12. An overview of exact solutions of Einstein's equations <i>D.C. Srivatsava</i>	143
13. Quantum gravity and string theory <i>J. Maharana</i>	155
14. Eikonal approach to Planck scale physics <i>Saurya Das</i>	167
15. Black hole entropy <i>Parthasarathi Mitra</i>	177
16. Ashtekar approach to quantum gravity <i>G. Date</i>	189
17. Quantum gravity on the computer <i>N.D. Hari Dass</i>	201

*List of Contributed Papers*

*List of Participants*