

INTRODUCTION

The IAU Symposium No. 64: *Gravitational Radiation and Gravitational Collapse* took place in Warsaw in conjunction with the Extraordinary General Assembly of the International Astronomical Union held in Poland to commemorate the quincentenary of the birth of Nicolaus Copernicus. It was proper and fitting to organize during the Copernican year a meeting devoted to gravitational phenomena: Copernicus, by putting the Sun at the centre of the planetary system, made the first, decisive step along the road which led to the Newtonian law of universal attraction.

The programme of the meeting was prepared by an Organizing Committee consisting of B. Bertotti, V. B. Braginski, S. Chandrasekhar, C. DeWitt (Editor), W. Fowler, I. D. Novikov, E. Schatzman, K. S. Thorne, A. Trautman (Chairman), J. Weber, J. A. Wheeler, and A. W. Wolfendale. The members of the Committee were asked by the chairman to give their opinion on the format of the meeting, the subjects to be covered and the choice of the invited speakers. Their advice was followed whenever convergent views were expressed, but the chairman is solely responsible for the final programme of the Symposium and its shortcomings. There was a general consensus that the Symposium should concentrate on the discussion of present and future experiments to detect gravitational waves of cosmic origin, and on questions related to collapse, black holes and the stability of relativistic systems. It was clear to all of us that a Symposium such as this could never have taken place in 1973 without the pioneering work of J. Weber.

A spirited discussion among the authors of several experiments on the detection of gravitational radiation was one of the highlights of the meeting. Equally interesting was the evidence for the existence of black holes in the Universe presented by R. Giacconi and supported by several short comments by the participants.

Ya. B. Zel'dovich, although formally not a member of the Organizing Committee, provided us with very valuable advice during the preparation of the Symposium and played a leading role during the meeting itself. K. S. Thorne did probably more than anybody else for the scientific success of the Symposium: with great skill he arranged the entire programme of the afternoon seminars, and, when time was getting short, he resigned from delivering his own report to allow another participant to speak.

On Thursday, September 6, 1973, there was a moving moment for the participants when Wojciech Rubinowicz, the distinguished scientist and President of the Polish Physical Society, presented Subrahmanyan Chandrasekhar with the Marian Smoluchowski medal, awarded to him by the Society in recognition of his outstanding scientific achievements. S. Chandrasekhar developed Smoluchowski's theory of the Brownian motion and applied it to astrophysical problems.

Because of the current importance of Gravitational Radiation and Gravitational Collapse both in physics and in astronomy, the Committee has been urged to make the proceedings available as quickly as possible. For this reason, the proceedings include only the abstracts and references of the contributed papers. The invited papers are published in full; their authors have met the early deadline, often at the cost of great inconvenience. Their cooperation is much appreciated.

The Symposium was supported in part by the Polish Academy of Sciences who provided grants to cover the living expenses of 25 participants of our meeting and offered us free use of many of its facilities. The Executive Committee of the IAU allocated \$1500 for travel expenses. The Local Organizing Committee of the Extraordinary General Assembly of the IAU, chaired by J. Smak, did much to make the stay in Warsaw comfortable and pleasant.

CECILE DEWITT-MORETTE

ANDRZEJ TRAUTMAN