Preface

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Preface

The International Colloquium “Scattering and Scintillation in Radioastonomy” was held in June 2006 in Pushchino, Moscow. The year 2006 was the year of the 55th anniversary of the pioneer paper (V. V. Vitkevich, Doklady Academii Nauk SSSR, 1951, 32, 106) which suggested the use occultations of radio sources by the outer solar corona for measuring possible radio wave modulation by irregular plasma near the Sun. The first observational data on radio wave scattering in the turbulent plasma of the outer solar corona was published about 50 years ago in the papers of V. V. Vitkevich (Astron. Zh., 1955, 32, 106) and A. Hewish (Proc. Roy. Soc., 1955, A228, 238). The year 2006 was also the year of the 50th anniversary of the foundation of the Pushchino Radio Astronomy Observatory.

The Pushchino Radio Astronomy Observatory organized an international workshop with a similar title in Pushchino in 1993. The last IAU Colloquium covering similar topics was held in Guiyang, China in 2000. Since that time many new essential results have been obtained in the investigation of interstellar and interplanetary scintillations. The framework of the Colloquium, the history of investigations and the basic results were discussed. Primary attention was given to new observational and theoretical results obtained during the last few years. The problems of comparison between the properties of interplanetary and interstellar plasma turbulence were also considered.

The main topics of the Colloquium were related to the following areas:

- Interplanetary scintillation
- Interstellar scintillation
- Modelling and physical origin of interplanetary and interstellar plasma turbulence
- Scintillation as a tool for investigation of radio sources
- Seeing through interplanetary and interstellar turbulent media

Leading scientific experts in these fields took part in the Colloquium which had more than 40 participants. The following is a list of the Colloquium Scientific Organizing Committee: Shishov V.I. (co-chairman, Russia), Rickett B.J. (co-chairman, USA), Ananthakrishnan S. (India), Bird M.K. (Germany), Chashei I.V. (Russia), Coles W.A. (USA), Cordes J.M. (USA), Kojima M. (Japan), Sieber W. (Germany), Smirnova T.V. (Russia), Walker M. (Australia). The Local Organizing Committee was headed by Chashei I.V. (Russia). This issue contains the papers presented at the Colloquium.

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