

JOINT DISCUSSIONS

A. JOINT DISCUSSION OF COMMISSIONS
12, 40, 43, AND 44
NEW TECHNIQUES IN SPACE ASTRONOMY

(Friday, August 25, 1967)

Organizing Committee: L. Goldberg (Chairman), J.E. Blamont, L. Davis,
G.G. Fazio, C. de Jager, R. Lüst, R. Michard, V.K. Prokof'ev, F.G. Smith
Chairman of the programme: V.K. Prokof'ev

Contents:

1. V.K. Prokof'ev: Introduction
2. E.M. Reeves: Recent Techniques in Solar Optical Astronomy from Space.
3. R. Wilson: Ultraviolet Astronomy.
4. C. de Jager: New Techniques in X-Ray Astronomy.
5. John M. Wilcox: Solar and Interplanetary Magnetic Fields and Plasmas.
6. Frank J. Low: Infrared Astronomy.
7. A.E. Salomonovič: Some Problems and Instrumental Features of Submillimeter Astronomy.
8. J.-L. Steinberg: New Techniques in Space Radio-astronomy.

INTRODUCTION

V. K. PROKOF'EV

Ten years ago, on October 4, 1957, Sputnik-I was launched into an orbit around the Earth by the U.S.S.R. It was the first man-made object in space. The U.S.A. launched its first satellite, Explorer-I, on January 31, 1958. The first space probe, Lunik-I, was launched on January 2, 1959, into solar orbit and became the first artificial planet. The satellites initiated the intensive development of a new region of astronomy: space astronomy. During these 10 years, our television eyes have been on the Moon and near Mars. At the present time, we know the conditions in space between the orbits of Venus and Mars. More than 100 satellites operate in space, thus yielding rich information about the phenomena in the region near the Earth and in the interplanetary medium. There are now two space stations in flight to Venus, and Lunar Orbiter-5 photographs the Moon's surface.

We meet here to discuss new astronomical techniques, the techniques of space astronomy. We must also mention here, with gratitude, the many engineers and workers whose efforts made this possible.

Noting our successes in space astronomy, we must not forget the painful losses which all humanity suffered in the course of the year 1967. The tragic loss of four astronauts, Komarov, Grissom, White, and Chaffee, during the tests of new space-ships during flight and on the ground, was marked with grief throughout the world. I invite you to stand in honor of their memory. (Pause.)

Our joint discussion is now open.