

AWARD OF MEDALS

The Sixty-ninth Annual Award of Medals was held on Monday, June 11, 1979, at 10:00 a.m., in the presence of His Majesty the Emperor.

The function was opened with an address by the President, in which he made a brief statement of each award. Then, the Medals and Prizes were presented to the respective recipients.

After this, congratulatory addresses were given by the Prime Minister and the Minister of Education.

The function was closed at 11:15 a.m.

THE RECIPIENTS OF THE PRIZES AND THE SUBJECTS OF THEIR STUDIES

Yoshihide KOZAI

Studies of Motions of Saturnian Satellites,
Artificial Satellites, and Asteroids

Kozai started his research by studying motions of Saturnian satellites by a matrix integration method, and then analyzed observations of Saturnian satellite positions including those deduced by himself by applying his new theory. Thus he derived a new set of the orbital elements of the satellites and further derived the masses of the satellites as well as the value of the oblateness parameters of Saturn. This work contributed to a revision of the ephemerides of Saturnian satellites.

In 1958 the Smithsonian Astrophysical Observatory, which was responsible for the optical tracking project of artificial satellites in the United States, invited Kozai to stay there. During his stay he engaged in the analysis of data of satellite trackings collected there to derive information on geodesy by determining the orbital elements and detecting their variation. In the process of the analyses, he developed theories of the main problem of the satellites, determined gravitational effects due to the sun and the moon, and calculated solar radiation pressure effects on satellite motions. Then he derived coefficients of spherical harmonics up to more than 20th order in the expression of the geopotential. As a pioneer in this field called satellite