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ASTRONOMICAL INSTITUTE NATIONAL OBSERVATORY OF ATHENS

ANNUAL REPORT 1964

The activities of the Astronomical Institute of the Observatory of Athens and the Astronomical Station at Penteli may be described as follows :

I. — ATHENS OBSERVATORY

Staff. Prof. S. Plakidis retired on August 31 from the chair of Astronomy of the Athens University, and from the direction of the Astronomical Institute of the Athens Observatory after having worked in this establishment for almost fifty years. On August 31st Dr. G. Adamopoulos likewise retired from the Observatory. Dr. J. Focas has resigned to work with the Section of Major Planets of the IAU.

Assistant Mr. G. Banos left on November 1st, 1964, for France Observatory of Meudon to pursue research in solar physics.

Following a decision of the Board the direction of the Astronomical Institute has been temporarily taken over by Assistant Professor Dr. C. Macris.

Meridian and Time Services. Mr. Haimis with Mr. G. and C. Banos and Mr. D. Elias carried out routine work. 73 time signals were registered by Mr. C. Banos who made routine chronometer checkings and computations ; Mr. D. Elias did the same for 57 time signals. Mr. Haimis also assumed office work, translations, etc.

Major Planets Program. This was pursued with the Newall refractor at Penteli by Mr. C. Banos who made 14 visual observations of Jupiter and 6 of Venus. Eight hundred pictures of Jupiter were taken on fifty plates and 180 pictures of Venus on 9 plates.

Solar Service. Dr. Macris assisted by Mr. Th. Prokakis (a grantee of the Royal Hellenic Research Foundation) have taken

ciné-pictures of the photosphere through the 40 cm Doridis refractor. Four-hundred metres of film were obtained; he likewise photographed the lunar eclipse of June 24-25, 1964. Mr. C. Banos made 62 visual observations of the Sun, and 62 two-hour flare patrol of the chromosphere with the monochromatic filter. Pictures of the chromosphere were obtained on 62 films. Mr. D. Elias made 228 drawings of spots, flare patrol on H α , 97 measurements of solar disc diameter with the Schoenberg heliometer and obtained 3,200 photographs of the chromosphere and 10 of the photosphere.

Other Activities. Mr. D. Elias made 255 observations of variables, 560 sightings of earth-satellites, and obtained on three occasions photographs of the Moon. Dr. Adamopoulos, who was responsible during the first eight months of the year for the activities of the Institute made various observations with the Doridis refractor.

The IAU meetings at Hamburg were attended by Dr. G. Adamopoulos, Dr. G. Macris, Dr. J. Focas, G. Banos and D. Elias. Dr. Macris attended the Florence Colloquium Dei Macchie Solari, 9-11 September 1964. Dr. Elias visited on invitation the Swedish Solar Observatory at Anacapri for a month and was usefully instructed in the photometry of flares and other chromospheric phenomena; he subsequently attended the 5th International Space Symposium in Florence (12-15 May, 1964).

II. — PENTELI ASTRONOMICAL STATION

Meteorological Observations. Daily routine observations at 8 a. m. were registered by Mr. Chassapis. Pluviometric data were reduced and forwarded to the Hydrological Center.

Miscellaneous. Usual routine work was carried out, the chronometers were serviced and 147 time signals were registered. Dr. Macris assisted by Mr. Chassapis secured until March 658 measurements of twilight zenith-sky brightness with a photoelectric photometer. A large number of observations were made of the appearance of stars at twilight and were used for calibrating photometer readings. The lunar eclipse of June 24-25, 1964 was observed and various adjustments of the Zeiss refractor were made.

Maintenance and Repairs. Mr. Chassapis supervised repairs of the dome-rotating and floor-elevating machinery as well as repairs of buildings. The road leading to the Station was maintained in a satisfactory condition and the grounds of the Station were tended to.

III. — PUBLICATIONS

The following papers were published or submitted for publication by the members of the staff, in 1964:

C. Macris.

Sulla Nomenclatura Relativa ad Alcuni Fenomeni Solari, Memorie delle Società Astronomica Italiana, vol. XXXIV, p. 3.

C. Macris.

Les Voyages Interplanétaires, une Nécessité pour l'Humanité Scientia, Juin-Juillet 1964.

C. Macris.

Photometry Study of Chromospheric Floculi, communication of the IAC, Actes, Commission 12, Solar Radiations, First Meeting 26 August 1964.

C. Banos.

Photometric Study of the Atmospheric Activity on the Planet Jupiter and peculiar Activity in its Equatorial Area. Annales d'Astronomie, T. 27, No 1, pp. 35-45.

D. Elias.

Solar Activity in 1962.

IV. — ACQUISITIONS OF EQUIPMENT

The following equipment has been acquired by the Institute in the course of 1964:

- 1) An automatic electrically controlled camera for registering solar centres of activity.
- 2) An electric calculating machine.
- 3) A typewriter with Latin alphabet.
- 4) A filar micrometer for the Newall refractor.
- 5) A camera for the Newall.
- 6) An enlarger for the photolab.
- 7) A complete series of filters.
- 8) Photolab equipment.

V. — VISITS

The members of the 25th IAU Symposium which met in Thessaloniki in 1964 subsequently visited the Observatory of Athens. The station at Penteli was visited by several astronomers, namely Dr. Haffner of Hamburg, Dr. D. Brouwer of Yale, Sir R. Wooley of Greenwich, Dr. Schmeidler of Munich, and by the participants to the NATO's Advanced Studies Institute on Solar System Radio-astronomy; Members of this Observatory participated to the meetings.

The Observatory was likewise visited by lay visitors, by schools of Athens and the provinces, and popular lectures were held for their benefit.

RESEARCH AND COMPUTING CENTER
ACADEMY OF ATHENS

ANNUAL REPORT 1964

Staff. Dr. L. N. Mavridis has been appointed Professor of Geodetic Astronomy and Chairman of the Department of Geodetic Astronomy, University of Thessaloniki, effective February 19, 1964. At present he continues acting also as Director of the Research and Computing Center. Mr. J. Zampakas left on November 30, 1964 after a one year term as research assistant paid from funds made available through the Royal Hellenic Research Foundation. Mr. G. Vasiloglou was appointed research assistant effective December 1, 1964. He is paid from funds made available through the Scientific Affairs Division, North Atlantic Treaty Organization.

Equipment. One Heathkit Battery Eliminator Model BE-5 and one Carrier Room Air Conditioner Model 51NQ1547 were acquired.

Research Programs. The following research programs were carried out during 1964:

1) Statistical Study of Solar Activity (Professor J. Xanthakis). The analytical study of the variation of the different indices of solar activity within each sunspot cycle and from cycle to cycle reported last year was continued.

2) Investigation of Problems of Star Formation (Professors J. Xanthakis and L. N. Mavridis in collaboration with Professor B. Strömgren). The main objective of this project, which was initiated by Professor B. Strömgren in 1959, is to investigate the variation of the chemical composition (heavy-element content) of the interstellar matter of the Galaxy in the course of the evolution of this stellar system. A survey of the stars with ultraviolet excess contained in an area of 2,000 square degrees in high galactic latitudes is carried out in Athens with the help of direct plates having one ultraviolet exposure and one, suitably displaced, yellow exposure taken with the 48-inch Schmidt telescope of the Mt. Palomar Observatory. The narrow-band photoelectric photometry of the stars with ultraviolet ex-

cess thus found will be carried out at the Kitt Peak National Observatory.

3) Photoelectric Photometry of Galactic Cepheids (Professor L. N. Mavridis in collaboration with Dr. K. Bahner). The study of the light variation of the anomalous cepheid TU Cas with the help of the recently developed new method as well as the discussion of the photoelectric two-color (B, V) observations of the remaining 17 galactic cepheids reported last year were continued.

4) Distribution of the M-, S- and C-Type Stars in Selected Areas of the Milky Way (Professor L. N. Mavridis partly in collaboration with Professors V. Blanco and J. J. Nassau). The photographic photometry of the M-, S- and C-type stars discovered in the areas studied reported last year was continued. Some of the first results found were included in a review paper on «Infrared Surveys and Their Results» presented by Professor L. N. Mavridis in the Advanced Study Institute on «Observational Aspects of Galactic Structure» held at Lagonissi, Greece, September 9-23, 1964.

5) Rotational Velocities of the Members of Selected Open Clusters (Professor L. N. Mavridis in collaboration with Professor R. Kraft). The study of the rotational velocities of 50 stars in the area of the open cluster NGC 6633 reported last year was continued.

6) Study of the Low-Latitude Aurorae (Dr. W. Abbott). The photographic observations of low-latitude aurorae with the help of an ASCA system installed on Mt. Aderes (Argolis, Greece), reported last year, were continued.

Visitors. The following scientists visited the Center during 1964: 1) Professor A. Blaauw, Director of the Sterrenkundig Laboratorium Kapteyn Groningen, 2) Dr. J. Borgman, Sterrenkundig Laboratorium Kapteyn, Groningen, 3) Professor K. O. Kiepenheuer, Director of the Fraunhofer-Institut, Freiburg i. Br., 4) Professor J. de Kort, S. J. Chairman of the Department of Astronomy, Faculty of Science, Catholic University of Nijmegen and 5) Professor A. B. Underhill, Astronomical Observatory «Sonnenborgh», Utrecht.

Advanced Study Institute on «Observational Aspects of Galactic Structure». Professor L. N. Mavridis was the Organizer of an Advanced Study Institute on «Observational Aspects of Galactic Structure» held under the auspices of the Science Committee, North Atlantic Treaty Organization at Lagonissi, Greece, September 9-23, 1964. Professor A. Blaauw was the Scientific Director of this Institute, which was attended by 64 students from 16 countries. The following astronomers gave invited lectures during the Institute: 1) Professor A. Blaauw, 2) Professor B. J. Bok, 3) Professor R. Cayrel, 4) Professor G. Cayrel-de Strobel, 5) Professor H. Elsässer, 6) Professor Ch. Fehrenbach, 7) Professor H. Haffner, 8) Professor F. J. Kerr, 9) Professor H. Kienle, 10) Professor L. N. Mavridis, 11) Professor J. H. Oort, 12) Professor L. Plaut, 13) Professor L. Rosino, 14) Professor M. Schmidt, 15) Professor Th. Schmidt-Kaler, 16)

Professor R. H. Stoy and 17) Professor B. Strömgren. Further lectures on Greek Archeology were given during the Institute by Professor G. E. Mylonas and Mrs. A. Papageorgopoulou. The support of the Science Committee, North Atlantic Treaty Organization, and the Greek National Tourism Organization for the organization of the Institute is gratefully acknowledged. Professor J. Xanthakis attended this Institute and addressed the participants on behalf of the Greek National Committee for Astronomy. The same Institute was also attended by Mr. P. Alexiou and Mr. J. Zampakas.

Miscellaneous. Professor J. Xanthakis was the leader of the Greek delegation in the XIIth General Assembly of the International Astronomical Union held in Hamburg from August 25 to September 3, 1964. The same meeting was also attended by Professor L. N. Mavridis and Mr. P. Alexiou. Professor J. Xanthakis was member of the Organizing Committee of the Symposium No. 25 of the International Astronomical Union on «Theory of Orbits in the Solar System and in Stellar Systems» held in Thessaloniki, August 17-22, 1964 and addressed the participants on behalf of the Greek National Committee for Astronomy. The same meeting was also attended by Professor L. N. Mavridis. Professors J. Xanthakis and L. N. Mavridis attended also the Advanced Study Institute on «Solar System Radio Astronomy» held under the auspices of the Science Committee, North Atlantic Treaty Organization at Cape Sounion, Greece, August 2-15, 1964.

The Director of the Center

Professor L. N. Mavridis

DEPARTMENT OF ASTRONOMY

UNIVERSITY OF ATHENS

ANNUAL REPORT 1964

Staff. The contract of assistant Mr. Gr. Antonacopoulos was extended for three years.

Professor S. Plakidis retired from the University of Athens and from the direction of this Department, on August 31st, 1964.

Teaching. Before retiring Prof. Plakidis delivered his course on General, Physical, and Mathematical Astronomy. The course was attended by the students in Physics and Mathematics of the fourth year.

Assistant Professor Dr. D. Kotsakis gave a course on Physical and Mathematical Astronomy. Professor L. Carapiperis, professor of Meteorology, was appointed by the Faculty acting temporary Head of the department. He accordingly held a course on General Astronomy.

Laboratory training. Students received their routine training in astronomical work, at the National Observatory and at the Penteli station. Responsible for the training were, Dr. Kotsakis, assistant Mr. Gr. Antonacopoulos and Mr. Ch. Frangakis; the number of students totalled 251, i. e. 161 of the Mathematics and 90 of the Physics Sections.

Purchases. The standing credit amounting to 38,400. Drachmas was used for the purchase of books and the payment of subscriptions to scientific journals as well as various other duties. A translucent celestial globe, a Honeyweel photometer recorder, and an equatorial drive for one of the instruments were purchased through an extra allocation of 78,200 Drachmas.

Meetings. Assistant Professor Dr. D. Kotsakis, Chief assistant Mr. D. Katsis, and assistant Mr. Gr. Antonacopoulos participated to the 25th IAU Symposium on Celestial Mechanics held in Thessaloniki (August 16-23, 1964). This Department contributed to the organization of the Symposium and to the subsequent visit of the participants to Athens. Assistant-Professors D. Kotsakis and W. Abbot and Mr. Katsis attended the meetings of the IAU at Hamburg (August 23-Sept. 5, 1964) Mr. Katsis was elected member of IAU. The same and assistant Mr. Ch. Frangakis attended likewise the NATO School on Aspects of Galactic Structure held from Sept. 9 till Sept. 23 1964 at Lagonissi, Greece.

Publications. The following publications were made by the staff-members of this Department:

D. Kotsakis.

Dispersion of the fragments of an exploding planet. Bull. de la Société Mathématique de Grèce, nouvelle série, t. 5, fasc I, 1964.

The light-curve of Eta Aquilae during the years 1937-1964. Publications of the Department of Astronomy, University of Athens series II, No 10, 1964.

The Sun and the Planets, in Greek, Athens, 1964. Popular.

W. N. Abbott.

Possible Correlation between Sporadic E and low-altitude air glow emission of 5577 in the median latitudes, Journal of Atmospheric and Terrestrial Physics, v. 26, pp. 776-780, 1964.

D. Katsis.

Le problème du Mouvement d'un Satellite Artificiel par la Méthode de von Zeipel. Lectures given before the Mathematical Society of Greece. Mass and density of the Sun, Astronomika Nea. fasc. 46 1964.

Gr. Antonacopoulos.
The Origin of the Zodiacal Light, *Astronomika Nea*, fasc. 46, 1964.

Lectures. Assistant Professor D. Kotsakis, and Chief-Assistant Mr. D. Katsis, gave popular lectures on Halley's comet and on the Present and Future Evolution of the Sun; Mr. Katsis gave a seminar on the «Influence of the atmospheric Drag on the Motion of Earth satellites», in the premisses of the Research and Computing Center of the Academy of Athens. In the same premisses a seminar on Earth satellites was held by assistant Mr. Ch. Frangakis.

Grants. The Ministry of Coordination has extended the grant of assistant Mr. Gr. Antonacopoulos who is studying Celestial Mechanics. The same agency likewise extended the grant of assistant Mr. Ch. Frangakis, who is working on Upper Atmosphere data derived from Earth satellites, for nine more months. Mr. Frangakis will also benefit from a Government grant to work abroad on Numerical Analysis.

The Acting Head of the Department

Prof. Dr. L. Carapiperis

ASTRONOMICAL DEPARTMENT UNIVERSITY OF THESSALONIKI

ANNUAL REPORT 1964

Staff. Mr. Arsenis, graduate in Physics, was appointed assistant in July 1964.

Mr. G. Bozis, graduate in Mathematics, returned to Greece from Yale University in November 1964, and was appointed assistant at the end of the year.

Scientific Work during 1964. a) Dr. Contopoulos and Mr. Moutsoulas continued their work on the «Resonance Cases and Small Divisors in a Third Integral of Motion». They studied particularly the case when the unperturbed frequencies in two perpendicular directions are equal or nearly equal.

b) Dr. Contopoulos worked on the periodic orbits and the tube and shell orbits that surround the stable periodic orbits in different potential fields. These orbits are quite different from the usual box-

type orbits. However, they can be explained by means of the third integral of motion when we have a rational ratio of the unperturbed frequencies. These results were reported at the IAU Symposium No 25. A detailed paper on this subject is in preparation.

c) Dr. Contopoulos worked also in special applications of the third integral such as: 1) New integrals in time dependent potentials. 2) The exchange of energy between coupled oscillators. In particular he could explain the Fermi—Pasta—Ulam paradox by means of the third integral, etc.

d) Dr. Barbanis worked on some applications of the third integral, especially the topology of the surfaces representing the intersection of the third integral supersurface by the energy supersurface.

Besides the report he gave on this subject at the IAU Symposium No 25, he has submitted a paper under the title «Projections of Galactic Orbits» for publication in the *Astronomical Journal*.

e) Mr. Bozis worked at Yale and at the Institute for Space Studies in New York on the restricted three body problem in connection with the existence of a new integral besides the Jacobi integral. His work is formulated in the regularized plane, where collision orbits are allowed, and indicates that such an integral does exist.

f) Our Department participates to the National Program for the International Quiet Sun Years with the following observational Program:

- i) Observations of sunspots in total light.
- ii) Optical and photographic observations of the chromosphere (flares, surges, filaments, prominences etc.) by means of a monochromatic filter H α .

Mr. Papageorgiou and Mr. Arsenis have made observations during 204 days. Two sketches, one of the photosphere and one of the chromosphere were made daily; a daily report was prepared, including coordinates and areas of sunspots, the Wolf number, the duration of various phenomena etc. The total patrol time was 435 hours.

Monthly reports were sent to the following Institutions:

- 1) Fraunhofer Institut, Freiburg, Germany.
- 2) Eidgen. Sternwarte, Zürich, Schweiz.
- 3) IQSY World Data Center A, Boulder, USA.
- 4) IQSY World Data Center B, Moscow, USSR.
- 5) IQSY World Data Center C, Meudon, France.
- 6) AAVSO, N. Jersey, USA.

Publications. In the series «Contributions from the Astronomical Department of the University of Thessaloniki» has appeared:

- 1) Nr. 14: G. Contopoulos and G. Bozis: Escape of Stars during the Collision of two Galaxies, *Astrophysical Journal*, **139**, 1239, 1964.

Other publications:

G. Contopoulos and L. Woltjer: The «Third» Integral in Non-smooth Potentials, *Astrophysical Journal*, **140**, 1106, 1964.

B. Barbanis : Exercises of Astronomy (B) Celestial Mechanics, Thessaloniki, 1964 (in Greek).

IAU Symposium No 25. From 17 to 23 August, 1964, a Symposium on the «Theory of Orbits in the Solar System and in Stellar Systems» was organized by the International Astronomical Union, in cooperation with COSPAR, in Thessaloniki, Greece. The Organising Committee consisted of Drs. D. Brouwer (Chairman), G. Contopoulos, E. Buchar, Y. Hagihara, K. F. Ogorodnikov, L. Perek and J. Xanthakis.

The Symposium was supported by UNESCO, the US Air Force Office of Scientific Research, the Office of Naval Research, and by the Greek Government. The help of the Greek National Committee for Astronomy, the Greek Organization for Tourism, the National Royal Foundation and especially of Drs. Brouwer, Hagihara, Szebehely and the General Secretaries of the IAU, Drs. Sadler and Pecker, should be mentioned. The staff of the Astronomical Department worked hard before and during the Symposium to organize its activities, both scientific and social. A great part of the success of the organization is due to Mr. Papageorgiou.

There were 65 participants in the Symposium from 13 countries, and 50 papers were presented. Nine sessions were held :

- 1) Developments in Stellar Dynamics (Chairman : D. Brouwer).
- 2) Dynamics of Stellar Systems (Chairman : Sir Richard Woolley).
- 3) New Methods in Celestial Mechanics (Chairman : Y. Hagihara).
- 4) Planetary Theories (Chairman : G. M. Clemence).
- 5) Stellar Orbits (Chairman : G. Contopoulos).
- 6) Stability and Many-body Problems (Chairman : J. Kovalevsky).
- 7) Satellite Theory I (Chairman : W. Eckert).
- 8) Three Body Problem (Chairman : V. Szebehely).
- 9) Satellite Theory II (Chairman : L. Perek).

Dr. Contopoulos gave an invited address under the title «Recent Developments in Stellar Dynamics». Dr. Barbanis presented a paper on the «Topology of the Third Integral». Mr. Hadjidemetriou presented a paper on «Orbits of Binary Systems with Decreasing Mass». The work of Mr. Bozis on a second integral in the restricted three body problem was reported by Dr. Szebehely.

Participation to Meetings. Dr. Contopoulos, Dr. Barbanis, Mr. Moutsoulas and Mr. Papageorgiou participated in the 12th General Assembly of the IAU, in Hamburg, Germany. Dr. Contopoulos was Secretary of Commission 33 (The Structure and Dynamics of the Galaxy). He gave a report on the IAU Symposium No 25

to Commissions 33 (with Dr. Perek) and 28 (Galaxies). At the end of the General Assembly, Dr. Contopoulos was elected Vice-President of Commission 33.

Dr. Barbanis and Mr. Moutsoulas attended the NATO Summer Course on «Observational Aspects of Galactic Structure» held in Athens between 9 - 23 September, 1964.

Mr. Moutsoulas attended the NATO Advanced Study Institute on Solar System Radio - Astronomy held at Cape Sounion, 2 - 15 August, 1964.

Lectures - Seminars. The courses and seminars in Astronomy and Relativity in the University of Thessaloniki were continued as in the previous years.

Dr. Contopoulos gave three lectures on the Third Integral at the «Institut d'Astrophysique» of Liège, Belgium, in May 1964.

DEPARTMENT OF ASTRONOMY TECHNICAL UNIVERSITY OF ATHENS

ANNUAL REPORT 1964

Staff. Mr. G. Catsiaris, who is a graduate in Mathematics of the University of Athens, continued offering his services as Chief - Assistant in this Department. Mr. D. Vlachos has been appointed assistant.

Equipment. In the course of 1964 the following items have been acquired from the regular funds of this Department :

- 1) Four FACIT manual calculating machine.
- 2) One FACIT electric calculating machine,
- 3) One four-line FAVAG chronograph.
- 4) One T16E WILD theodolite with accessories.
- 5) One THEO - 010 theodolite.
- 6) One THEO-020 theodolite.
- 7) One T3 WILD theodolite with accessories.
- 8) One sidereal and one mean-time NARDIN chronometers.
- 9) One NARDIN electronic chronometer.

Exercises and Teaching. During the academic year 1963 - 64 Professor I. Argyrakos, Director of the Department, held a course in General, Spherical and Geodetic Astronomy. Mr. Catsiaris, Chief -

Assistant, trained the students to exercises of Theoretical Astronomy, while assistant Mr. Vlachos trained them to Practical Astronomy and astronomical geodetics. The students held seminars on subjects of special interest. The Director supervised all activities. The course and the exercises were attended by 96 students of the School of Agronomy and Survey Engineering.

DEPARTMENT OF GEODETIC ASTRONOMY UNIVERSITY OF THESSALONIKI

ANNUAL REPORT 1964

General. The Department of Geodetic Astronomy, University of Thessaloniki, has been established in October 1962 and belongs to the Faculty of Technology of this University.

Staff. Dr. L. N. Mavridis has been appointed Professor of Geodetic Astronomy, and Chairman of the Department effective February 19, 1964. At present he continues also acting as Director of the Research and Computing Center, Academy of Athens.

Equipment. One astronomical theodolite Wild T4, one calculating machine Monroe 88N-1-213 and two typewriters Hermes—Ambassador were acquired.

Research Programs. The following research programs were carried out during 1964 in cooperation with the Research and Computing Center, Academy of Athens, to the annual report of which we refer for further details:

1) Investigation of Problems of Star Formation (Professor L. N. Mavridis in collaboration with Professors B. Strömberg and J. Xanthakis).

2) Photoelectric Photometry of Galactic Cepheids (Professor L. N. Mavridis in collaboration with Dr. K. Bahner).

3) Distribution of the M-, s- and C-Type Stars in Selected Areas of the Milky Way (Professor L. N. Mavridis partly in collaboration with Professors V. Blanco and J. J. Nassau).

4) Rotational Velocities of the Members of Selected Open Clusters (Professor L. N. Mavridis in collaboration with Professor R. Kraft).

Teaching. Professor L. N. Mavridis gave, beginning with the academic year 1964-65, courses in General and Spherical Astronomy for the 3rd year undergraduates of the Division of Rural and Surveying Engineers.

Visitors. Professor J. Xanthakis, President of the Academy of Athens, visited the Department.

Miscellaneous. Professor L. N. Mavridis was the Organizer of the Advanced Study Institute on «Observational Aspects of Galactic Structure» held under the auspices of the Science Committee, North Atlantic Treaty Organization at Lagonissi, Greece, September 9-23, 1964. He also attended the following international astronomical meetings: 1) the XIIth General Assembly of the International Astronomical Union held in Hamburg from August 25 to September 3, 1964, 2) the Symposium No. 25 of the International Astronomical Union on «Theory of Orbits in the Solar System and in Stellar Systems» held in Thessaloniki, August 17-22, 1964 and 3) the Advanced Study Institute on «Solar System Radio Astronomy» held under the auspices of the Science Committee, North Atlantic Treaty Organization at Cape Soupion, Greece, August 2-15, 1964.

The Chairman of the Department

Professor L. N. Mavridis