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1967

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ASTRONOMICAL INSTITUTE NATIONAL OBSERVATORY OF ATHENS

ANNUAL REPORT 1966

Activities in the Athens Observatory and the Station of Penteli may be summarised as follows:

Staff. H. M. the King and the Royal Family gave on May 23, 1966 a reception in honor of the foreign missions which visited this country to observe the annular eclipse of the Sun of May 20, 1966. The entire staff of this Institute attended the reception.

The staff likewise participated to the Seminar organised by the National Observatory of Athens on the Solar Eclipse and the Ionosphere on the occasion of the eclipse. Funds were made available by NATO and the Greek Government. Dr. C. Macris developed the observational program of the Institute.

Dr. S. Svolopoulos was appointed Chief Assistant of the Observatory; he had previously served in this Observatory as well as in other Observatories abroad.

Mr. O. Prokakis was appointed Assistant of the Observatory.

Dr. C. Macris participated to the Colloquium on the Fine Structure of the Solar Atmosphere held at Capri, Italy, under the auspices of the National Center of Scientific Research of Western Germany and presented a paper; he likewise participated to a meeting held at Arcetri and sponsored by Prof. G. Righini and discussed the possibility of establishing in Greece a Center of Solar Research.

Mr. C. Banos spent two months at Meudon working under Dr. A. Dollfus on the planets and with an IAU grant for travel expenses. He also participated in France at meetings on the Moon and Mars, and presented photographs of planets secured in Athens.

Mr. G. Banos spent his educational leave in France, where he attended the University of Paris and the Observatory of Paris; he obtained the Diplôme d' Etudes Approfondies d' Astrophysique.

Mr. P. Topitzis and Mr. Ch. Lemonotzoglou worked as Assistants in the coordination program of solar observations with a grant from the U. S. Air Force Solar Service, Cambridge.

Instruments and Installations. Following an agreement with the U. S. Air Force Solar Service a new telescope of 25 cm aperture was installed in the premises of the Observatory, by the constructor, Razdow, New Jersey, U.S.A. This instrument is for visual, photographic, and cinematographic observations of the Sun with filters and in white light. A closed TV circuit allows continuous all-day monitoring from the observer's desk. The Astronomical Institute of this Observatory contributed fifteen thousand dollars to the purchase and ten thousand dollars to the installation of this instrument.

A device allowing automatic rotation of the small dome covering the Razdow instrument was constructed under the supervision of Mr. Th. Prokakis. The dome slit will thus follow the telescope on its all-day motion. Dr. C. Macris made several improvements to the triple heliograph, constructed in the Observatory's workshop.

A new Zeiss stereomicroscope has been added to the Institute's equipment.

At the Penteli Station the construction of a building to serve as a residence and as a laboratory was pursued under the supervision of Mr. C. Chasapis. A sum amounting to about thirteen thousand dollars (400.000 drachmas) was made available for repairs on the dome housing the Newall refractor. It is hoped that the work will be completed during the current year.

Time Service. Routine work was carried out by Mr. C. Banos, Mr. Th. Prokakis and Mr. D. Elias.

Annular eclipse of the Sun, May 20, 1966. Since the path of this eclipse lay across the country the Astronomical Institute made the necessary arrangements for observing it in various localities. The elements and necessary data were compiled by Mr. C. Chasapis and Mr. D. Elias in a booklet «Annular Solar Eclipse of May 20, 1966» (Memoirs of the Athens Observatory, Series, 1 No 12, Athens, 1965) which was distributed to the missions and all interested. Further data on local conditions of the actual observation sites were computed, or investigated on the spot by members of the staff. In this work the Institute was greatly assisted by the Geographical Service of the Army, the Departments of Astronomy of the Universities of Athens and Thessaloniki, and by Professors K. Kiepenheuer and G. Righini, whose contribution was appreciated. As the central line was very close to Athens Prof. Kiepenheuer selected as observation point this Observatory and used the 40 cm. Doridis refractor to which he attached an Askania ciné camera, and a Zeiss still camera with H α filter having a pass band of 0,25 Å.

An observational group consisting of Dr. C. Macris, Mr. Th. Prokakis, Mr. E. Sarris of the Athens University, G. Katsaris and D. Vlachos of the Technical University, observed the eclipse from Karystos, with an equipment consisting of a 16 cm. telescope and a ciné camera and plates and films were obtained both in white light and on H α .

Observations were likewise made from Spetsai by Mr. Chasapis and Mr. Antonacopoulos, and from Penteli by Mr. D. Elias and Mr. Papageorgiou of the University of Thessaloniki. They used H α filters adapted to the Newall telescope.

Another group consisting of Prof. D. Kotsakis, Head of this Institute, and Assistant Mr. P. Laskaridis of Athens, observed the eclipse from a point on the coast of Attica about 35 kilometers south of Athens where most of the foreign missions had established themselves, and which lay on the central line.

In general, the points of interest investigated by the Institute:

were the formations of the solar surface, as well as the secondary phenomena such as variations of the zenith brilliance, the moving shadows, the precise timing of contacts, etc.

Observations of the Sun. Observations of the solar photosphere and chromosphere were conducted by a group consisting of Mr. Th. Prokakis and Mr. D. Elias under the supervision of Dr. C. Macris. They worked jointly with the U.S. Air Force Solar Service group under Major D. S. Packnett; the results were communicated to the Solar research Centers within the framework of the Apollo lunar project. It should be noted that climatic conditions in this country offer considerable advantages for the continuous optical observation of the solar events. A report on the flares observed in 1966 has been prepared by Major Packnett for appropriate use.

Dr. C. Macris pursued his research on the CaII flocculi and part of his results has been published. He has likewise under study photographic material secured with the triple heliograph on the fine structure of the chromosphere. Mr. Th. Prokakis has worked on the photometry of flares; in collaboration with Mr. Caroubalos and Mr. Boviatsos of the Electronics Department of the University of Athens he investigated correlations between the areas of sunspots covered by flares and radio data. Mr. Elias pursued his research on correlations between the lifetime of a sunspot group and the 22 year cycle. He likewise continued measurements of the solar diameter by the Schoenberg method. Prof. Kotsakis and Assistant P. Laskaridis measured photoelectrically the atmospheric absorption as a function to the height of the Sun in Athens and Penteli.

Planets. Mr. C. Banos continued his observational program of major planets as part of the activities of Commission 16 of the IAU. He secured 540 photographs of Jupiter on 36 plates, 180 of Saturn on 54 plates and 135 of Mars on 9 plates with the Newall refractor, at Penteli. Using photographic material he studied the jovian atmospheric activity in 1964-66.

Comets. Mr. Elias observed visually comets Kilston (1966 b) and Rudnicki (1966 e) and determined their photometric parameters.

Stellar Observations. Dr. Svolopoulos measured the intensities of the emission lines of β Lyrae; he used plates taken with the telescope of 1m aperture of the Hamburg Observatory. He also completed statistical research on stellar surface temperatures and began the inspection of plates taken with objective prism of the Hamburg telescope in the region of the high velocity hydrogen formation known as the Oort Cloud.

Mr. C. Chasapis and Mr. D. Elias continued their routine observations of variables.

Celestial Mechanics. Prof. D. Kotsakis investigated the «restricted» three-body problem in tri-dimensional space.

Publications.

- 1) C. Banos. Evolution of the atmospheric activity on Jupiter

3) Photoelectric Photometry of Galactic Cepheids (Professor I. 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 observations of the remaining 17 galactic cepheids reported last year were continued.

4) Distribution of the M-, C- and S-Type Stars in Selected Areas of the Milky Way (Professor L. N. Mavridis). The photographic photometry of the M-, C- and S-type stars found in the six areas centered on the galactic clusters NGC 129, NGC 188, NGC 752, NGC 7789, NGC 7790 and M 25 was continued. Some of the results found were included in the paper «The Distribution of the M-, S- and C-Type Stars in the Milky Way» presented by Professor L. N. Mavridis in the «Colloquium on Late-Type Stars» held in Trieste June 13-17, 1966. The study of the M-, C- and S-type stars discovered in the four areas of the Mt. Palomar-Groningen variable stars survey carried out in collaboration with Professor V. Blanco has been given up because of the lack of the necessary photoelectric sequences. An analogous study is now being carried out at the Warner and Swasey Observatory by B. Hidajat working under the supervision of Professor V. Blanco.

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.

The research programs No. 2-5 are carried out in collaboration with the Department of Geodetic Astronomy, University of Thessaloniki.

Publications. The following publications appeared in 1966: Contributions from the Research and Computing Center, Academy of Athens, Series I (Astronomy):

No. 14: J. Xanthakis, The Departures of the Maxima of Solar Activity from the Parabolic Law. Pubblicazioni del Comitato Nazionale per le Manifestazioni Celebrative del IV Centenario della Nascita di Galileo Galilei, Tomo 2: Atti del Convegno sulle Macchie Solari, pp. 63-67 1966.

No. 15: J. Xanthakis, Probable Values of the Time of Rise for the Sunspot Cycle No. 20. Nature Vol. 210, pp. 1242-1243, 1966.

Contributions from the Research Center for Astronomy and Applied Mathematics, Academy of Athens, Series I, (Astronomy) [being a continuation of the above series]:

No. 16: P. G. Alexiou and C. P. Poulakos, The Relations Between the Relative Sunspot Numbers and the Time of Rise. Praktika de l' Académie d' Athènes t. 41, 1966.

No. 17: J. Xanthakis, The Relative Sunspot Numbers and the Time of Rise. Bulletin of the Astronomical Institutes of Czechoslovakia Vol. 17, pp. 215-223, 1966.

No. 18: J. Xanthakis, The Probable Mean Values of the Different Indices of Solar Activity During the Sunspot Cycle No. 20 (1964-1975). Praktika de l' Académie d' Athènes t. 41, 1966.

Miscellaneous. Professor J. Xanthakis was the head of the Greek delegation in the IXth Plenary Meeting of COSPAR and the VIIIth International Space Science Symposium held in Vienna, May 10-19, 1966.

The Superintendent of the Center
Professor J. XANTHAKIS

DEPARTMENT OF ASTRONOMY

UNIVERSITY OF ATHENS

ANNUAL REPORT 1966

Staff. In 1966 there have been some changes in the staff of the Department. These may be summarised as follows:

a) Dr. S. Svolopoulos was elected Assistant Professor of Astronomy of the University of Athens following the recommendations of Prof. Kotsakis.

b) A Ph. D degree in Science and Mathematics was awarded to Assistant Mr. G. Antonacopoulos.

c) Chief Assistant Dr. D. Katsis resigned in May and Dr. Antonacopoulos was promoted to this function.

d) The vacancy of the post of Assistant thus created was filled by Mr. E. Sarris, graduate in Mathematics, who was appointed Assistant.

e) Likewise Mr. M. Zikidis, graduate in Physics was appointed to the newly created post of Assistant.

f) Mr. C. Akrivos, graduate in Physics, was also appointed Assistant.

Teaching. Professor Kotsakis delivered his course in Astrophysics and Mathematical Astronomy to the fourth year undergraduates of the Mathematics and Physics Sections. Assistant Professor C. Macris delivered a course on Solar Physics. Assistant Professor Svolopoulos delivered a course on the structure of the Galaxy.

Training of the students and exercises were carried out in the Department and the Penteli Station. These were attended by 183 undergraduates of the Mathematics Section and 155 undergraduates of the Section of Physics, and were supervised by Dr. Katsis, Dr. G. Antonacopoulos, Mr. P. Laskaridis, Mr. E. Sarris, and Mr. M. Zikidis.

Instruments. Equipment has been acquired by this Department as follows:

- 1) A Hirsch B. S. 512/IV/PA time commutator.
 - 2) A synchronous motor, type SY 62 X 39-4, 1500 UPM.
 - 3) An enlarger Durst L. 54.
 - 4) Furniture and equipment for the Department.
- Likewise have been ordered from abroad:
- 1) A pendulum drive Differential Uhrgang (Zeiss).
 - 2) A solar photographic camera (Sonnenkamera, Zeiss).
 - 3) A mean time chronometer Ulysse Nardin (Switzerland).
 - 4) A measuring micrometer (Zeiss).

Conventions. A meeting on the Solar Eclipse and Ionosphere was held in Athens from 23-28 May 1966. Professor Kotsakis, Chief Assistant Dr. G. Antonacopoulos, and Assistants Mr. P. Laskaridis, Mr. E. Sarris, attended.

Publications. Prof. D. Kotsakis published «Introduction to Astrophysics», Part II, «Stars».

Assistant Prof. S. Svolopoulos published the following paper in the series of the Publications of this Department:

B-type stars.

- 1) The Manganese star α Andromedae.
- 2) The emission-line star β Orionis.

These appeared in the publications of the Lab. Astron. Univ. Athens 1966.

He likewise published the papers on the same subjects:

- 1) The spectrum of Manganese star α Andromedae, Ann. d' Astroph. 29, 23, 1966.
- 2) The spectrum of β Orionis, Ann. d' Astroph. 29, 29, 1966.
- 3) Six-Color Observations of RS Ophiuchi, Publ. Astron. Soc. Pacific, 78, 157, 1966.

Research Activities. Prof. D. Kotsakis carried out work on the «restricted» 3-body problem. Assisted by Assistant Mr. P. Laskaridis he made photoelectric measurements on the selective spectral absorption of sunlight by the atmosphere at various zenith-distances.

Prof. Kotsakis established a program for the observations of the annular eclipse of the Sun of May 20, 1966. He was assisted in this by the entire staff of the Department.

Assistants G. Antonacopoulos and E. Sarris measured double stars with the Lyot micrometer.

Assistant P. Laskaridis visited the Observatory of Milano Merate and worked on photometry from August 15 - September 15.

The Head of the Department
Prof. D. KOTSAKIS

ASTRONOMICAL DEPARTMENT

UNIVERSITY OF THESSALONIKI

ANNUAL REPORT 1966

Staff. Dr. G. Contopoulos worked as a Senior Research Associate at the Institute for Space Studies in New York from August to October 1966.

Dr. B. Barbanis returned from the Department of Astronomy of Columbia University, where he had worked as a Research Associate for 21 months.

Dr. J. Hadjidemetriou was appointed Assistant in May 1966.

Mr. M. Moutsoulas is on leave of absence since July 1965 at the University of Manchester.

Scientific work during 1966. 1) Dr. Contopoulos worked on the following subjects.

a) The elliptical restricted three-body problem and the three-dimensional restricted three-body problem. Two papers on these subjects were sent for publication in the Astronomical Journal.

b) The resonance phenomena and the non-applicability of the «third» integral. He found an explanation of the «breakdown» of the «third» integral for large perturbations. This gives the possibility of finding a priori the limits of applicability of the third integral. A paper on this subject was presented at the Besançon Meeting «Les Nouvelles Méthodes de la Dynamique Stellaire», and will be published in the Bulletin Astronomique. Further work on this subject is being continued.

c) Integrals of motion in a spiral galaxy. A «Jacobi» integral and a «third» integral have been found in special spiral fields and their applications have been considered. A paper on this subject was presented at the Liège Symposium «Gravitational Instability and the Formation of Stars and Galactic Structures», and it will be published in the Proceedings of the Symposium.

d) The restricted three-body problem in the post-newtonian approximation of general relativity. A paper on this subject is in preparation.

e) Dr. Contopoulos, in collaboration with Dr. Chandrasekhar, completed a paper «On a Post-Galilean Transformation in the Post Newtonian Approximation of General Relativity»; this was accepted for publication in the «Proceedings of the Royal Society».

f) Dr. Contopoulos and Dr. Barbanis began a research project which aims at finding numerically the evolution of a plane spiral galaxy, by following the orbits of a very large number of stars. The main steps have been laid down and some of the necessary computer programs have been prepared.

g) Dr. Contopoulos and Dr. Hadjidemetriou continued working on some special resonance phenomena which appear in two dimensional potentials.

h) Dr. Contopoulos prepared part of the Report of Commission 33 (The Structure and Dynamics of the Galactic System) for the Proceedings of the IAU. This part covers the subjects Kinematics and Dynamics.

2) Dr. Barbanis worked on the following problems during his stay in Columbia University:

a) With Dr. K. Prendergast he studied the potential in a spiral galaxy. The main results of this work have been presented by Dr. Barbanis at the 122nd Meeting of the American Astronomical Society (Cornell University). A paper under the title «Gravitational Potential of a Disk Spiral Galaxy» was submitted for publication in the Astronomical Journal.

b) With Dr. L. Woltjer he studied the velocity dispersion of young stars in a spiral galaxy. The results of this work are to be submitted for publication in the Astrophysical Journal.

c) A number of orbits have been calculated, using the IBM 360/75 Computer of the Institute for Space Studies, New York, in a potential field composed of an axisymmetric galactic potential, given by Contopoulos and Strömberg, and a spiral potential field. The purpose of these calculations is to find i) what are the deviations from the orbits calculated by Contopoulos-Strömberg, due to the imposed spiral pattern and ii) The possible existence of a new integral. This work is continuing.

3) Dr. Bozis continued his work on the restricted three body problem as regards the existence of a new integral. An analytic expression of this integral in terms of the Delaunay variables has been found. A paper entitled «The applicability of a new integral in the restricted three body problem I» was accepted for publication in the Astronomical Journal. Further work is in progress in order to find invariant curves and boundaries of orbits using the new integral.

4) Dr. Hadjidemetriou worked on the following problems.

a) Mass exchange between the components of a close binary system in the case where one star fills completely its Roche lobe and loses mass mainly through the inner Lagrangian point L_1 .

b) The existence of a «third» integral near periodic orbits in the restricted three-body problem in connection with the problem of second and higher order stability.

c) A classification of two and three-dimensional orbits passing through L_1 in the restricted problem, as far as the minimum distance from either primaries concerned.

5) Mr. Moutsoulas prepares his thesis on the physical librations of the Moon. He presented a paper on this subject at a Meeting on Selenodesy in Manchester which will be published in the Proceedings of this Meeting.

6) Mr. Papageorgiou continued his daily observations of the Sun, both of the photosphere and the chromosphere. The observations cover 225 days. The total patrol time was 780 hours. Monthly reports were sent to the centers mentioned in the annual report 1965.

He worked in collaboration with Prof. Kiepenheuer during the solar eclipse of May, 1966, at the Penteli Observatory, Athens.

Publications. «Contributions from the Astronomical Department of the University of Thessaloniki».

No. 19 J. D. Hadjidemetriou «Binary Systems with Decreasing Mass» *Z. f. Astrophysik* **63**, 116, 1966.

No 20. J. D. Hadjidemetriou «Analytic Solutions of the two-body problem with Variable Mass» *Icarus* **5**, 34, 1966.

No 21. G. Contopoulos «Adiabatic Invariants and the third Integral» *Journal of Mathematical Physics*, **7**, 788, 1966.

No 22. G. Contopoulos «Tables of the Third Integral» *Astrophysical Journal, Supplement No 122, Vol. XIII*, 1966.

No 23. G. Contopoulos «Recent Developments in Stellar Dynamics» *Proceedings of the IAU Symposium No 25*, 3, 1966.

No 24. B. Barbanis «The Topology of the Third Integral» *Proceedings of the IAU Symposium No 25*, 19, 1966.

No 25. J. D. Hadjidemetriou «Orbits of Binary Systems with Decreasing Mass» *Proceedings of the IAU Symposium No 25*, 129, 1966.

No 26. B. Barbanis «On the Isolating Character of the Third Integral in a Resonance Case» *Astronomical Journal* **71**, 415, 1966.

No 27. G. Bozis «On the Existence of a New Integral in the Restricted Three-body Problem» *Astronomical Journal*, **71**, 404, 1966.

No. 28. G. Contopoulos «Problems of Stellar Dynamics» *Lectures in Applied Mathematics, Vol. 5, Space Mathematics Part 1*, p. 169, 1966.

No 29. G. Contopoulos and M. Moutsoulas «Resonance Cases and Small Divisors in a Third Integral of Motion. III» *Astronomical Journal*, **71**, 687, 1966.

Other publications. a) G. Contopoulos «Report of Meetings, 26 August and 1 September 1964» *IAU Commission 33 (Structure and Dynamics of the Galactic System)*.

b) Introduction to Astrophysics (Part 4, Cosmology) for the fourth grade students of Mathematics and Physics (in greek) 1966.

c) G. Contopoulos, What is the Third Integral. Publications of the Greek Mathematical Society, 1964.

d) B. Barbanis «The Planet Venus» Bulletin of the Geographical Service of the Army 85-86, 43, 1964.

e) G. Bozis «A new Integral of the Restricted Three body Problem», Thesis (in greek), 1966.

Meetings. Dr. Contopoulos with Dr. Szebehely organized a Meeting of the «Gravitational n-body problem» at the Institute for Space Studies, New York, (October 17-18, 1966), including participants from the Universities of Chicago, Yale and Columbia, the Smithsonian Astrophysical Observatory, and NASA.

Dr. Contopoulos with Dr. Strömgrén organized a Meeting on «Problems of Spiral Structure» at the Institute for Space Studies, New York, including participants from MIT, the Institute for Advanced Study, the Universities of Chicago and Columbia, the Smithsonian Astrophysical Observatory, and NASA. The speakers were Strömgrén, Lin. Shu, Vandervoort, Prendergast, Contopoulos, Toomre and Kalnajs. An «Outline of Talks» of this Meeting will be published by the Institute for Space Studies.

The IAU is sponsoring a Colloquium on the «Gravitational n-body problem» to be held in Paris, August 16-18, 1967, after a formal proposal of Dr. Contopoulos, who is a member of the Organizing Committee.

Dr. Contopoulos participated in the 14th Liège Colloquium «Gravitational Instability and the Formation of Stars and Galactic Structures», June 1966, and the Besançon International Colloquium «Les Nouvelles Méthodes de la Dynamique Stellaire», September 1966.

In the latter Colloquium participated also Dr. Hadjidemetriou and Mr. Moutsoulas.

Dr. Barbanis participated in the 122nd Meeting of the American Astronomical Society, Cornell University, July 1966.

Dr. Bozis participated in the Summer School on «Non-Linear Problems» in Munich, July 1966.

Mr. Papageorgiou participated in the NATO Summer School on «Solar Physics», Lagonissi, September 1965, and in the NATO Meeting on «Solar Eclipses and the Ionosphere», Athens, May 1966.

Lectures - Seminars. The courses and Seminars of the Astronomical Department continued as in previous years.

Dr. Contopoulos during his stay in the United States was invited to give lectures or seminars at the following Universities: Yale, Harvard, Chicago, Purdue, and Cleveland Observatory.

Dr. Barbanis gave two seminars at Columbia University and the Institute for Space Studies in New York.

The Head of the Department
Prof. G. CONTOPOULOS

DEPARTMENT OF ASTRONOMY TECHNICAL UNIVERSITY OF ATHENS ANNUAL REPORT 1966

Staff. The staff of this Department consisting of Mr. G. Katsiaris, and Mr. D. Vlachos, both graduates of Mathematics and Agronomy Survey Engineers, observed at Karystos the annular eclipse of the Sun of May 20, 1966. They were also responsible for giving the correct time to the French Mission which was likewise at Karystos. During the summer the staff carried out astronomical observations with new methods of Geodetic astronomical determinations. In August Mr. D. Vlachos, Assistant, assumed the duties of Chief Assitant of this Department.

Instruments. During 1966 the following equipment was purchased from routine funds of the Department ;

- 1) Two prismatic orthogonals.
- 2) One Engineer's Level N₂ (WILD)
- 3) Complete set PNL (WILD)
- 4) An imm INVAR rod.
- 5) One Engineer's Level NAK-E (WILD)
- 6) Two specular stereoscopes
- 7) Two polar planimeters CORADI
- 8) Eleven WILD TI6 theodolites with their assessories.

Teaching and exercises. In the course of the academic year 1965-66 Professor J. Argyrakos, Head of this Department assisted by Mr. G. Katsiaris and D. Vlachos held his course on General Spherical, Practical and Geodetic Astronomy. An advanced seminar covering speacial subjects was likewise held the last-year students.

These courses were attended by 31 students of the third year and 43 students of the fourth year of the School of Rural and Survey Engineers.

The Head of the Department
J. ARGYRAKOS

DEPARTMENT OF GEODETIC ASTRONOMY
UNIVERSITY OF THESSALONIKI
ANNUAL REPORT 1966

Staff. Professor L. N. Mavridis resigned effective January 21, 1966 from his position as Director of the Research and Computing Center, Academy of Athens. He will continue offering his services as scientific collaborator of the Center jointly with his duties as Chairman of this Department. Mr. Th. P. Contoroupis graduate in Physics has been appointed Assistant effective April 30, 1966. In this way the staff of the Department on December 31, 1966 included the following scientists: 1) Professor L. N. Mavridis, Chairman, 2) Mr. P. L. Ivrisimtsis, Assistant, 3) Mr. A. C. Tsioumis, Assistant, and 4) Mr. Th. P. Contoroupis, Assistant.

Equipment. The following equipment was acquired in 1966: 1) One iris photometer Model W. Becker, constructed by Askania, 2) one standard frequency and time system Rohde und Schwarz CAC, 3) one time recorder Omega 2, 4) one Theodolite Wild T3, 5) one Theodolite Wild T2, 6) one camera Hasselblad 500 C, 7) five field glasses, one Kern Focalpin 10 X 60, one Kern Focalpin 7 X 50, two Kern Pizar 8 X 30 and one Champion 10 X 50.

Research Programs. The following research programs were carried out during 1966 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-, C- and S-Type Stars in Selected Areas of the Milky Way (Professor L. N. Mavridis).

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 during the academic year 1966-67 courses in General and Spherical Astronomy for the 3rd year undergraduates and in Geodetic Astronomy and Higher Geodesy for the 4th year undergraduates of the Faculty of Technology, Division of Rural and Surveying Engineering.

Miscellaneous. Professor L. N. Mavridis attended the «Colloquium on Late-Type Stars» held in Trieste June 13-17, 1966 and presented a paper on «The Distribution of the M-, S- and C-Type Stars in the Milky Way».

The Chairman of the Department
Professor L. N. MAVRIDIS