ANNUAL REPORTS OF THE ASTRONOMICAL INSTITUTES OF GREECE 1969

PUBLISHED BY THE GREEK NATIONAL COMMITTEE FOR ASTRONOMY

ACADEMY OF ATHENS
RESEARCH CENTER FOR ASTRONOMY AND APPLIED MATHEMATICS
1970

CONTENTS

Annual Reports for the Year 1969 of the:

Astronomical Institute, National Observatory of Athens	n.	3
Academy of Athens, Research Center for Astronomy and		
Applied Mathematics	>	6
Department of Astronomy, University of Athens	*	7
Astronomical Department, University of Thessaloniki	•	. 9
Department of Astronomy, University of Ioannina	>	11
Department of Astronomy, University of Patras))	13
Department of Astronomy, Technical University of Athens	*	14
Department of Geodetic Astronomy, University of Thessaloniki	3	15

ASTRONOMICAL INSTITUTE NATIONAL OBSERVATORY OF ATHENS

ANNUAL REPORT 1969

The activities of the Astronomical Institute and the Pentele Astronomical Station of the National observatory of Athens may be summarised as follows:

Staff. Professor D. Kotsakis visited in July the new Leopold Figl—Observatorium of the Vienna University and the Observatory of Picdu-Midi where he collaborated with Professor Rösch on the observation of the transit of Mercury, May 9th 1970 which was made from Athens. He subsequently visited the Department of Astronomy of the University of Manchester and discussed the possibility of cooperation with the Pentele Station. He likewise visited the C. Zeiss-Jena works and discussed repairs to be brought to the Newall telescope by this firm.

Dr. C. Chasapis retired from the civil service having completed

35 years service.

Dr. C Macris, with the approval of the Board of Directors of this Observatory, visited Arcetri in March, July, and November. He discussed with Professor Rigutti and Dr. Falciani their joint research on the photometry of flares.

Mr. E. Focas withdrew from the personnel of AFCRL and was replaced by Miss E. Filippakou. He was appointed to the Department

of Meteorology of the Athens University.

The students of Physics, Mr. Alyssandrakis and Mr. Dialetis, worked in the Iustitute on a voluntary basis. Mr. Lemontzoglou and Mr. Lathouris who worked with AFCRL on contract resigned on being drafted for military service.

Major G. McCright relinquished his functions as Head of the

AFCRL group and was replaced by Captain D. Newell.

Instruments and Equipment. The Razdow solar telescope was in comission the year through. It was operated by observers of the AFCRL group supervised by Dr. G. Banos and Mr. Th. Prokakis, with Dr. C. Macris in charge.

The Institute has acquired a new Durst magnifier to be used at the Pentele Station. A Leica camera for miscellaneous photography was also acquired.

Time Service. Routine was carried out at the Observatory by Mr. C. Banos, Mr. D. Elias and Mr. Th. Prokakis, and at Pentele by Dr. Chasapis.

Observations. 1) Sun. Dr. C. Macris continued chromospheric observations with the triple heliograph. Visual observations of the photosphere and the chromosphere were carried out by Dr. G. Banos, Mr. Th. Prokakis and Mr. D. Elias. The American Group of the AWS made continuous visual observations and obtained every one minute photographs of chromospheric events. Mr. D. Elias observed the seeing as well as the variation of the solar diameter with the Schönberg heliometer.

The auxiliary personnel attached to this telescope developed

the films and processed them for use.

2) Planets. Mr. C. Banos photographed Mars, Jupiter and Saturn with the Newall telescope at Pentele. He secured 2000 photographs on 150 plates.

3) Photometry. Mr. Th. Prokakis made zenith observations of the atmosphere at twilight.

Research. Dr. C. Macris pursued his research work on the flares and on the dynamics of the chromosphere. Dr. G. Banos studied the fine structure of the chromosphere. Mr. C. Banos worked on the results of the photometric study of Jupiter and prepared his PhD thesis on this subject. Mr. Th. Prokakis pursued work on the Wilson effect in sunspots. He is likewise preparing his PhD thesis on this subject and will submit it to the University of Athens. Part of this work was carried out at the Technical University of Athens with the microphotometer of this establishment. He used for this purpose photographs obtained with the triple heliograph.

Foreign Visitors. Professor Z. Kopal of Manchester University and Assistant Professor M. Moutsoulas visited in January and September the Observatory of Athens. Their object was to establish a program for measuring stellar parallaxes at Pentele, Assistant Professor J. Meaburn participated to the September meeting.

Professor R. Falciani of Arcetri visited this Institute in May and gave a lecture on the photometry of flares which is the subject of a

joint research program.

Dr. A. Falchi - Donati of Arcetri likewise visited this Institute in September and worked with the triple heliograph for one month.

Meetings. Participation. Professor Kotsakis, Drs Macris, G. Banos and Mr. Prokakis participated to the NATO Institute of Advanced Studies on the «Solar Eclipses and the Ionosphere».

Dr. C. Macris attended the convention on the «Cooperation Mediterranée pour l'Enérgie Solaire».

Professor Kotsakis, Drs C. Chasapis, G. Banos, and Mrs. C. Banos and Th. Prokakis attended the Summer School of NATO on the aStructure and Evolution of the Galaxy» which was held at Lagonissi.

Dr. C. Macris attended the meetings of JOSO at Freiburg. Ger-

many, in March 1969.

Routine. This concerns computing calendar data, correspondence, use of available credits, budget, payments, conducting visits of schools and individuals, library and miscellaneous activities. They were handled by Dr. C. Macris, Dr. G. Banos, Mr. Th. Prokakis, and Mr.

Visits. University students, schools and the general public were admitted to the facilities of the Observatory and of the Pentele Station.

Publications. a) C. J. Macris, A Remarquable Eruptive Prominence on the solar disc on January 29, 1968, Solar Rhysics 1869.

b) M. Anastassiadis and C. Macris: The Wave Outburst of No-

vember 1st and 22th, 1968, Solar Physics.

c) C. Macris and C. Alyssandrakis: Life-Time of the Dark and

Bright Mottles of the Solar Chromosphere, Solar Physics 1969.

d) C. Banos: Contribution to the Study of Jupiter's Atmosphere, PhD thesis submitted to the University of Athens and approved.

> The Director of the Institute Prof. D. Kotsakis

RESEARCH CENTER FOR ASTRONOMY AND APPLIED MATHEMATICS

ACADEMY OF ATHENS

ANNUAL REPORT 1969

Staff. Professor L. N. Mavridis continued offering his services as scientific collaborator of the Center jointly with his duties as Chairman of the Department of Geodetic Astronomy, University of Thessaloniki. Mr. C. P. Poulakos continued working as Research Assistant of the Center during the entire year on a grant of the Royal Hellenic Research Foundation. Miss A. Gouva continued working until April 30, 1969 as Technical Assistant of the Center. She was salaried from funds made available through the Scientific Affairs Division, North Atlantic Treaty Organization.

Research Programs: The following research programs were carried out during 1969:

- 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 Problem of Star Formation (Professors J. Xanthakis and L. N. Mavridis in collaboration with Professor B. Strömgren). The survey of the stars with ultraviolet excess, contained in an area of 2.000 square degrees in high galactic latitudes, reported last year, was continued.
- 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 Messrs. C. P. Poulakos and A. C. Tsioumis). The photographic photometry and the study of the space distribution of the M-, S-, and C- 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. A preliminary report on the results obtained so far was included in a paper under the title «Space Distribution of the M-, S-, and C- Type Stars »presented by Professor L. N. Mavridis in the Advanced Study Institute on the «Structure and Evolution of the Gal-

laxy» held under the auspices of the Science Committee, North Atlantic Treaty Organization at Lagonissi, Greece, September 8-19, 1969.

Miscellaneous. Professor J. Xanthakis attended the Advanced Study Institute on the "Structure and Evolution of the Galaxy" held under the auspices of the Science Committee, North Atlantic Treaty Organization at Lagonissi, Greece, September 8—19, 1969 and addressed the participants on behalf of the Greek National Committee for Astronomy. The same Institute was also attended by Mr. C. P. Poulakos.

The Superintendent of the Center Professor J. Xanthakis

DEPARTMENT OF ASTRONOMY UNIVERSITY OF ATHENS

ANNUAL REPORT 1969

Staff. During 1969 there have been some changes on the staff of this Department:

a) Mrs. Maria Macris-Antonacopoulos was appointed assistant

as from April 4. She has graduated in Mathematics.

b) Mr. D. Papathanasoglou assumed his functions as assistant as from November 29. He has graduated in Physics.

c) Mr. P. Laskaridis, assistant, was granted one year's educa-

tional leave for postgraduate studies in Canada.

d) Miss Maria Arzoglou and Mr. D. Dionysiou, both graduates in Mathematics, have been considered eligible as assistants.

Teaching. Professor D. Kotsakis has held courses in Mathematical Astronomy and Astrophysics to the fourth year students of the Mathematics Section. He likewise delivered courses in Astrophysics and Elements of Astronomy to the fourth year students of the Physics Section of the Faculty of Sciences.

Chief assitant Dr. G. Antonacopoulos has lectured on special subjects of Mathematical Astronomy on approval by the Faculty.

The students, duly divided into groups, followed courses in Practical Astronomy and attended seminars at the University, the Observatory, and the Penteli Station. Exercises were made by Dr. Antonacopoulos, Mr. E. Sarris, Mr. M. Zikidis, and Mrs. Maria Antonacopoulos. The number of students trained numbered 168 of the Physics and 361 of the Mathematical Sections, respectively.

Instruments. The following equipment have been acquired by this Department during 1969:

a) One quartz chronometer, Ebauches S.A. 220 V. 50 Hz No 51.

b) A short-wave receiver, Specific products, WWVT No 2130 tor time signals.

c) A Broxar Lens for enlarging processes.

d) A Tele lens 135/3.5 mm for the Exacta camera.

e) The University of Athens, Supplies Department, has donated photostat copy equipment, model 3M—company, 107. 5M, 107.

Lectures. A series of lectures were held once weekly in this Department during 1969. The subjects hore on Celestial Mechanics and more specifically on the periodical orbits of the restricted three—body problem. The staffs of the Department of the Technical University of Athens and of the University of Patras, members of the Department of Theoretical Mechanics of these two Universities likewise attended these lectures.

Attendance to Seminars. The Head of this Department and his staff attended the seminars on a Solar Eclipses and the Ionosphere and on the Evolution and Structure of the Galaxy which were held at Lagonissi, in June 1 and September, respectively.

Research. The Head of this Department and Mr. M. Zikidis worked jointly on the evaluation of atmospheric absorption and the re-

levant reductions of photometric data.

The Head of this Department likewise collaborated with Professor Z. Kopal and Dr. Meaburn in establishing a program of research on stellar parallaxes to be carried out jointly by the staffs of this Department and the Department of Astronomy of the University of Manchester.

Chief assistant Dr. G. Antonacopoulos investigated subjects of Celestial Mechanics, and more specifically the «perturbations on the minor planets».

Assistant Mr. M. Zikidis continued his research on the periodical orbits in the two-dimensional elliptical three-body problem.

Publications. a) D. Kotsakis: Theory of Errors and Least Squares Method, p. 177, 3d edition, Athens 1969.

b) D. Kotsakis, M. Zikidis, and E. Sarris: Drag-effect of a resisting medium on the orbits in the case of the restricted three-body problem. Technica Chronica, v. 5, 1969.

c) D. Kotsakis, P. Laskaridis, and M. Zikidis: Evaluation of absorption effects for the reduction of photometrical data. Year Book of the University of Athens. 1969.

d) G. Antonacopoulos: Laplace Coefficients and their Derivatives, Publ. Lab. of Astronomy, University of Athens, ser. II, No 23, 1969.

e) G. Antonacopoulos and C. Fragakis: The Andronicos Horologium in Athens. Athens Annals of Archaeology, No 3, 1969.

The Head of the Department Prof. D. Kotsakis

ANNUAL REPORT 1969

Staff: Dr. G. Contopoulos was a visiting Professor at the Harward College Observatory until the end of January 1969, at the Massachusetts Institute of Technology during February and March 1969 and at the University of Chicago from April to the end of August 1969.

Dr. B. Barbanis was appointed Professor of Astronomy at the

University of Patras in March 1969.

Dr. J. Hadjidimetriou was appointed Associate Professor of Theoretical Mechanics at the University of Thessaloniki in June 1969.

Mr. C. Catsonis was appointed Scientific collaborator of the Royal Hellenic Research Foundation in December 1969.

Scientific Work during 1969: 1) Dr. G. Contopoulos worked on the following subjects a) Orbit Theory: Two papers were prepared under the title "Orbits in Highly Perturbed Dynamical Systems, I. Periodic Orbits and II. Stability of Periodic Orbits" which were accepted for publication in the Astronomical Journal. A third paper on the subject is being prepared.

b) Dynamics of Spiral Galaxies: A paper was prepared under the title "Resonance Effects in Spiral Galaxies" and was accepted for publication in the Astrophysical Journal A second paper on the same

subject is being prepared.

- c) Third Integral: A computer program was prepared (in FORTRAN) which gives the third integral in the case of any potential of the form $V=\frac{1}{2}$ (Ax^2+By^3)+ any higher order terms. This program gives also the special forms of the third integral in resonance cases (whenever $A^1/_3/B^1/_2=n/m$, where n, m, are small integers). A study of some applications of the third integral was made in (1) the restricted three—body problem and, (2) the non linear oscillations of ellipsoidal fluid masses.
- d) Relativity Theory: Some computer programs were prepared for problems of the post-newtonian approximations in Relativity Theory.
 2) Dr. B. Barbanis found the properties of orbits near the particle resonance in spiral galaxies.

3) Dr. G. Bozis continued his work on periodic orbits of the re-

stricted problem. He found some collision periodic orbits starting at a certain angle from one of the primaries. This work is progressing in cooperation with Dr. G. Antonacopoulos of the University of Athens.

4) Dr. J. Hadjidemetriou continued his work on higher order stability of dynamical systems. A paper on this subject is in preparation

5) Mr. Papageorgiou continued his work on chromospheric phenomena visible on the photosphere.

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

No. 49. J. Hadjidemetriou: «Dynamics of Close Binary Systems with Mass Exchange» Astroph. and Space Science 3, 31, 1969.

No. 50. J. Hadjidemetriou: «Dynamical Effects of Mass Exchange in Close Binary Systems», Astroph. and Space Science 3, 330, 1969.

No. 51. G. Bozis: «Comments on the Classification of Periodic Orbits of the Restricted Problem of Three Bodies», The Observatory 89, 75, 1969.

No. 52. J. Hadjidemetriou: «Second order Stability of Dynamical Systems with two degrees of freedom», A. J. 74, 789, 1969.

Other Publications. G. Bozis «Internal Structure and Models of Stars» (in Greek), Bulletin of the Geographical Service of the Army, Athens 1969.

Meetings. Dr. Contopoulos participated in the following meetings:

a) Meeting on Relativity Theory in Cincinnati, Ohio (June, 1969).

- b) IAU Symposium No. 38 «The Spiral Structure of our Galaxy), Basel, Switzerland (August-September 1969). He was a member of the Organizing Committee and Editor of the Proceedings (with Dr.W. Becker). He presented an invited paper under the title «Gravitational Theories of Spiral Structure».
- c) He sent a communication under the title «Resonance Phenomena in Spiral Galaxies» to the Symposium «Periodic Orbits, Stability and Resonances», Sao Paulo, Brazil (September, 1969).
- d) «Advanced Study Institute on the Structure and Evolution of the Galaxy», Lagonissi, Greece (September, 1969). He gave two lectures on galactic dynamics.

Dr. Bozis participated in the Symposium on «Periodic Orbits, Stability and Resonances» Sao Paulo, Brazil, (September, 1969). He presented a paper under the title «Sets of collision periodic orbits in the restricted problem of three bodies».

Lectures, Seminars. Dr. Contopoulos gave courses in Dynamical Astronomy at the Harvard College Observatory, the Massachu-

setts Institute of Technology and the University of Chicago. He gave also seminars at the Georgia Institute of Technology, Atlanta, Georgia; the Yerkes Observatory, Williams Bay, Wisconsin; the Astronomisches Rechen - Institut, Heidelberg; the Hamburg Observatory, Hamburg - Bergedorf, and the Democritos Nuclear Research Center, Athens.

He is currently delivering courses in Astronomy and Theore-

tical Physics at the University of Thessaloniki.

The Head of the Department Prof. G. Contopoulos

DEPARTMENT OF ASTRONOMY UNIVERSITY OF IOANNINA

ANNUAL REPORT 1969

Staff. Mr. J. Hadjiconstantinou was appointed senior laboratory technician, effective December 24, 1969.

Miss M. Alexandropoulos began working as voluntary teaching assistant since Octomber 1969.

Teaching. Prof. S. Svolopoulos gave courses in Astronomy to the 3d and 4th year undergraduates students of Mathematics and in Experimental Physics to the 1st year of the undergraduate students of Mathematics.

Equipment. 1) An Aluminizing plant designed by F. Thorlin for the mirror of our 25-inch reflector and constructed by «Richard Berg A/B», Stockholm, Sweden, has arrived in Ioannina.

2) An «Olympia» RAE 4/15 Computing machine was purchased.
3) Five sextants, three of which of the Bubble-type, were donated to the Department by the Navy for the practicing of the Students. For this donation many thanks are due to the Commander in Chief of

the Navy.

Attendance to Seminars. Prof. S. Svolopoulos attended the following International Seminars:

International Summer Course on the Structure and Evolution of the Galaxy, held by NATO in Lagonnissi, September 8-19.

The NATO Advanced Studies Institute on Solar Eclipses and the Ionosphere held in Lagonissi, May 27—June 3.

Research Programs. Prof. S. Svolopoulos continued his Studies on the distribution of various types of stars by inspecting objective—prism plates taken at the Hamburg Observatory.

Publications: 1) Distribution of Luminous stars in the region of one high velocity hydrogen cloud.

Astronomische Nachrichten 291, 129, 1969.

2) General Astronomy, (Text Book in Greek), First Volume, pages 203, Ioannina, 1969.

3) Scientific evaluation of Basil's the Great Hexahemeron (in Greek), Ceremonial lecture, Ioannina, 1969.

The Head of the Department Prof. S. N. Svolopoulos

DEPARTMENT OF ASTRONOMY UNIVERSITY OF PATRAS

ANNUAL REPORT 1969

A Department of Astronomy was founded in 1969 at the new University of Patras. Patras is the third city of Greece and is located in north-western Peloponnese, about 200 km from Athens.

Staff: Dr. B. Barbanis, formerly Assistant Professor of Astronomy of the University of Thessaloniki, was elected full Professor of Astronomy of the University of Patras and took charge of the newly founded Department in March 1969.

Miss Theodora Galanakis, a high-school graduate, was appointed assistant in November 1969. A proposal was submitted in October 1969 for the appointment of Miss Helen Livaniou, B. Sc. in Mathema-

tics, as assistant in the Department.

Teaching: Dr B. Barbanis held a course in general Astronomy for the third year undergraduates in Mathematics and Physics. Parallel to this, efforts were and are being made for the organization of a Laboratory for undergraduate work in Astronomy. For this purpose several instruments have been ordered. Besides, in order to promote scientific research, attempts to organize an Astronomical Library are being made.

Research Program: Dr. B. Barbanis studied plane galactic orbits near the particle resonance of a spiral field. The main results of this work presented at the Symposium No 38 of the IAU held at Basel, September 1969. A paper under the title «Particle Resonance in a Spiral Field» will be published in the Proceedings of the Symposium.

Publications: 1. B. Barbanis: The Spiral Structure of our Galaxy, (in Greek), Technical Annals, March 1969.

2. B. Barbanis: Pulsars, (in Greek), Bulletin of the Geographical Service of the Army, No 95, 1, 1969.

Meetings: Dr. B. Barbanis attended the Symposium No 38 of the IAU on «Spiral Structure of our Galaxy» held in Basel, August 29.—September 4, 1969.

The Head of the Department Professor B. Barbanis

DEPARTMENT OF ASTRONOMY

TECHNICAL UNIVERSITY OF ATHENS

ANNUAL REPORT 1969

Staff. This consists of Chief assistants Mr. Katsiaris and Mr. D. Vlachos, both graduates in Mathematics and qualified Rural and Survey Engineers.

Instruments. One Omega 0/TR2 chronograph was acquired by this Department during 1969.

Teaching and Training. During the academic year 1968-1969 Professor I. Argyrakos, Head of this Department, delivered courses on General, Spherical, Practical, and Geodetic Astronomy. He was assisted by assistants Mr. Katsiaris and Mr. Vlachos. Seminars on special subjects were also held for the fourth year students. Courses were attended by 93 and 99 students respectively of the third and fourth year of the School of Rural and Survey Engineers.

Scientific Activities. Chief assistant Mr. Vlachos was awarded a PhD with honors on presentation of a thesis on «High precision triangulations for detecting distortions in dams».

Chief assistant Mr. Katsiaris also submitted a PhD thesis on a The three dimensional periodical orbits of double symmetry in the restricted three-body problem».

The Head of the Department Prof. I. Argyrakos

DEPARTMENT OF GEODETIC ASTRONOMY UNIVERSITY OF THESSALONIKI THESSALONIKI, GREECE

ANNUAL REPORT 1969

Staff. The staff of the Department on December 31, 1969 included the scientists: 1) Professor L. N. Mavridis, Chairman and 2) Mr. A. C. Tsioumis, Assistant.

Equipment. The following equipment was acquired in 1969:
1) One split screen storage oscilloscope, Tectronix 549, 2) one gravity meter, La Coste and Romberg, model G, 3) one one-line recorder, Phillips, model 2500/00, 4) two precision aneroid barometers, Fuess, Barolux, 5) two aspiration psychrometers Assman, Fuess, 6) one crystal detector, Hewlett Packard X 424A with frequency meter, Hewlett Packard X 532B, 7) three theodolites, Wild T2, 8) one photomultiplier, RCA 1P21, 9) six photomultipliers, RCA 931A.

Research Programs. The following research programs were

carried out during 1969:

1) Photoelectric Photometry of Galactic Cepheids (Professor L. N. Mavridis partly in collaboration with Dr. K. Bahner). The study of the light variation of the anomalous cepheid TU Cas with the help of the 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. A new series of photoelectric three-color observations of the same 18 galactic cepheids with the 38-cm reflector of the Stefanion Astronomical Station is in progress.

2) 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.

Also the following research programs were carried out during the same year in cooperation with the Research Center for Astronomy and Applied Mathematics, Academy of Athens, to the annual report of which we refer for details:

- 1) Investigation of Problems of Star Formation (Professor L. N. Mavridis in collaboration with Professors B. Strömgren and J. Xanthakis).
- 2) Distribution of the M—, S—, and C— Type Stars in Selected Areas of the Milky Way (Professor L. N. Mavridis partly in collaboration with Messrs. C. P. Poulakos and A. C. Tsioumis).

Teaching. Professor L. N. Mavridis gave during the academic year 1969-70 courses in General and Spherical Astronomy for the 2nd year undergraduates, in Geodetic Astronomy for the 3rd and 4th year undergraduates and in Higher Geodesy for the 4th year undergraduates of the Faculty of Technology, Division of Rural and Surveying Engineering, of the University.

Miscellaneous. Professor L. N. Mavridis was the Scientific Director and Local Organizer of the Advanced Study Institute on the «Structure and Evolution of the Galaxy» held under the auspices of the Science Committee North Atlantic Treaty Organization

at Lagonissi, Greece, September 8-19, 1969.

The following astronomers gave invited lectures during the Institute, which was attended by 65 students from 10 countries: 1) Professor A. Blaauw, 2) Professor P. B. Bouvier, 3) Professor E. M. Burbidge, 4) Professor G. R. Burbidge, 5) Professor A.G.W. Cameron, 6) Professor G. Contopoulos, 7) Professor H. Elsässer, 8) Professor W. Fricke, 9) Professor M. Golay, 10) Professor L. Gratton, 11) Professor F. J. Kerr, 12) Professor H. Kienle, 13) Professor P. Ledoux, 14) Professor I. N. Mavridis, 15) Professor Th. Schmidt —Kaler, 16) Professor P. van de Kamp, and 17) Professor Sir R. Woolley.

The support of the Science Committee, North Atlantic Treaty Organization, of the Greek Government, and of the Greek National Tourism Organization for the organization of the Institute, are gratefully acknowledged. The same Institute was also attended by

Mr. A. C. Tsioumis.

Professor L. N. Mavridis visited Egypt in April 1969 in the framework of the Greek Egyptian Cultural Exchanges Program and gave colloquium lectures in the Helwan Observatory and the Cairo University.

The Chairman of the Department Professor L. N. Mavridis