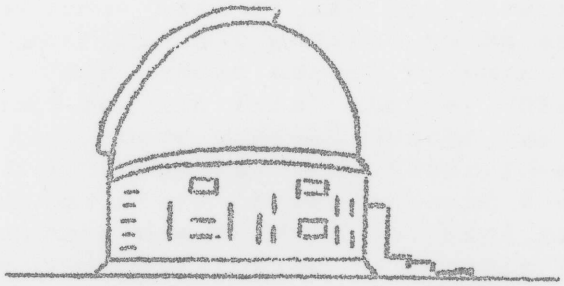
DAVID DUNLAP DOINGS



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EDITORIAL

GRADUATE TRAINING AT JODRELL BANK

by P. Gregory

Recently both the staff and students in our Department have been concerned with the possibility of improving our M.Sc. and Ph.D. astronomy programmes. Both the present course structure and student evaluation system have been the subject of discussion. When such debates are in progress, it is useful to know about experiments that have been carried out elsewhere and with much success. Since our Canadian system of graduate education lies somewhere between that of British and American Universities, I thought it relevant to mention my relatively recent experience as a graduate student at the University of Manchester.

In 1965 the Jodrell group started a new one-year M.Sc. programme in radio astronomy. Participation in this course was a prerequisite to beginning a Ph.D. irrespective of a student's undergraduate and/or graduate experience. The M.Sc. consisted of 9 hours a week of lectures, 2 electronics lab projects, a literature survey and a thesis. If a student did well enough in the first three, he was allowed to enroll directly into a Ph.D. programme without writing a thesis. However, this meant that he was not awarded an M.Sc.

The course material was broken into topics and each lecturer gave a series of lectures on a particular one. By the end of the year we had lectures from all 13 members of staff with the exception of Sir Bernard. This had the distinct advantage of enabling the students to make personal contact with each staff member which I found very helpful when deciding under whom to do my Ph.D. In general the course material was integrated quite successfully but as usual some lecturers were much better than others. After both the Christmas and final exam, we were interviewed individually by Graham Smith and the late John Thomson to discuss how we had done and in what areas we were weak. This type of discussion most of us found very helpful mainly because we could see on what overall basis we were being assessed.

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The allocation of thesis topics was again somewhat unusual. We were all given a list of about 20 possible choices and asked to indicate our preferences. Some of the topics were intended for an M.Sc. but most were sufficiently general to be applicable for either an M.Sc. or a Ph.D. This scheme seemed to work reasonably well although not everybody got his first choice. There were no more courses after the M.Sc. Once every 6 months was Ph.D. interviewing day, always an eventful occasion. The interviews were conducted by Sir Bernard with all the staff present except the student's supervisor. The chief purpose was to find out what progress we had made but we were also encouraged to bring up any beefs we had. One student I remember was having great difficulty with the Computing Dept. As a result of the interview, Sir Bernard arranged for another computer near Oxford to be made available for some of us including me. While I was at Jodrell, no student representative was invited to take part in any staff meeting but I understand that this situation has changed since.

When it came time to write up a thesis no staff member was allowed to do any proof reading, a practice which seems to be quite common in Canada. The Ph.D. thesis examination was largely conducted by the external examiner; your own supervisor was not permitted to participate but was often present as an observer along with a few other students. While I was there, no students actually failed the exam; however, out of the original 13 students with whom I started only 7 eventually completed the Ph.D.

OBSERVING

Spectroscopy in the Visual

Dr. Sanyal is interested in the visual region for observation of Hβ, Hα and other important lines in the spectra of his Be stars. He recently received a shipment of IIa-F plates, and we tried tilting the G12 grating to bring the visual region onto the plate. We could get the region nicely placed, but, as we feared, the region is pretty far off the blaze for satisfactory speed. If there were enough demand we think that it might be worth choosing an alternate grating. Anyone else interested?

COMINGS AND GOINGS

Drs. MacRae and Garrison were in Ottawa last week to attend discussions with a group of French astronomers. On Thursday Dr. K.O. Wright and the French astronomers, Dr. Jean Delhaye, Dr. Roger Cayrell and M. Pierre Belly, visited the Observatory here and described the French plans for a 3.6-metre telescope in Hawaii.

Drs. van den Bergh and Racine attended the ESO/SRC Symposium on Schmidt telescopes last week in Hamburg, Dr. van den Bergh giving a paper on "The Role of Schmidt Telescopes in Extra-galactic Research".

Dr. van den Bergh also gave a talk at Cornell on March 2 on "The Stellar Population in the Nuclear Bulge of the Galaxy"; gave a talk on "Die Sternpopulation in Zentralgebiet unserer Galaxis" at Göttingen Observatory, and attended a working session on Schmidt sky surveys organized by ESO at Bergadorf on March 24.

Dr. Racine also attended a seminar on March 13-15 on "Instrumentation in Astronomy" sponsored by the Society of Photo-optical Engineers in Tucson. On this same trip west he observed on the 200-inch March 9-11, obtaining spectrophotometric data on globular clusters in M87, and visited Dr. Roeder at Kitt Peak.

Dr. Percy was in London on March 2, giving a seminar at U.W.O. on "Multiple Periods in Variable Stars" and delivering to the R.A.S.C. London Centre the H.R. Kingston Memorial Lecture on "Stellar Magnetism".

SEMINARS

March - as announced

April

Tues. 4th D.D.O. Dr. John R. Percy, "Multiple Periods in Variable Stars".

Tues. 11th D.D.O. Dr. James P. Moran, Smithsonian Astrophysical Observatory, "Results of Recent VLBI Observations of OH and Water Vapour".

Tues. 18th D.D.O. Mr. David L. DuPuy, "An Observational Study of the RV Tauri Stars".

JUNE INSTITUTE

The dates of the June Institute are the 13th to the 16th inclusive, and the speakers are: Drs. van den Bergh and Bolton of the D.D.O, Drs. H. Gursky and W. H. Tucker of Cambridge, Mass., Dr. G. H. Herbig of Lick and Dr. M. Rees of Cambridge, Eng. Those who have not received an announcement may have one by writing to the Department of Astronomy, University of Toronto. Dr. M. J. Clement will receive applications from prospective participants up to May 26.

PAPERS SUBMITTED IN MARCH

S. van den Bergh: "The Role of the Schmidt Telescope in Extra-galactic Research"

J. D. Fernie "Photometric Weather at Toronto"

J.R. Percy
B. Madore

The High-Luminosity Boundary of the Beta Cephei Instability Strip

LETTERS, ETC

Dr. C. S. Beals, former Dominion Astronomer, has written that he enjoyed having the news of his former colleague, Dr. Young, and enjoyed the story on the Marsh family.

Dr. Vic. Hughes phoned to remind us of the involvement of the Queens radio astronomers in the early observations of radio flares on Algol. Sorry we missed that in our account last month.

MISCELLANEOUS

Appointments

Mark Naylor (Ph.D. 1971) has been appointed Assistant Professor at the University of Guelph.

David ~~Dupuis~~ DuPuy is to be appointed Assistant Professor at St. Mary's University, Halifax, effective Sept. 1. He will be in charge of the new observatory there which has just been completed.

Dr. Anand has been appointed Faculty Election Officer to plan and supervise the elections to the General Committee of the Faculty of Arts and Science for 1972-3.

Award

On March 17 at a meeting of the Toronto Centre the Gold Medal of the Royal Astronomical Society of Canada was awarded to Blake Kinahan for standing first in first class honours in the graduating year of the U. of T. astronomy program. Dr. Heard, as Honorary President of the Society, made the presentation, reminding the audience that this is the 27th award since 1905, many of the recipients having since attained great distinction in astronomy.

Talks

Dr. Hogg addressed the Richmond Hill Naturalists on Jan. 19 on "Canadian Craters on the Earth and the Moon".

Dr. Percy gave a lecture on March 16 at the College of Education on "Activities in Astronomy" as part of a three-hour lecture series on "Space and Man".

Dr. Heard opened a series on adult education at St. Mary's Church on Feb. 27, speaking on "Science and Religion".

Born

To Doug and Joan Hube in Edmonton on March 9, a second daughter, Susanne. The family will be coming to Ontario in May during which time Dr. Hube will be doing some observing with the 74-inch.

Bear's Bed Above Ambient

Dr. MacRae asks Senator Lamontaigne how it can be said that astronomy doesn't have practical applications in every-day life in view of the following which appeared in the Dec. 15/71 issue of Bio Science:

Satellite Monitoring of Black Bear, by J. J. Craighead, F. C. Craighead, Jr., J. R. Varney, and C. E. Cote (pp. 1206-1211), described how a feasibility experiment was performed recently to test the use of the Nimbus 3 ILRS System for telemetering environmental and physiological data from the winter den of a hibernating black bear, Ursus americanus. Sensory data collected showed the temperature in most locations in the den remained near freezing. Average temperature in the bear's bed was 24.8 C above outside ambient. Other points were 3-5C above outside temperature.