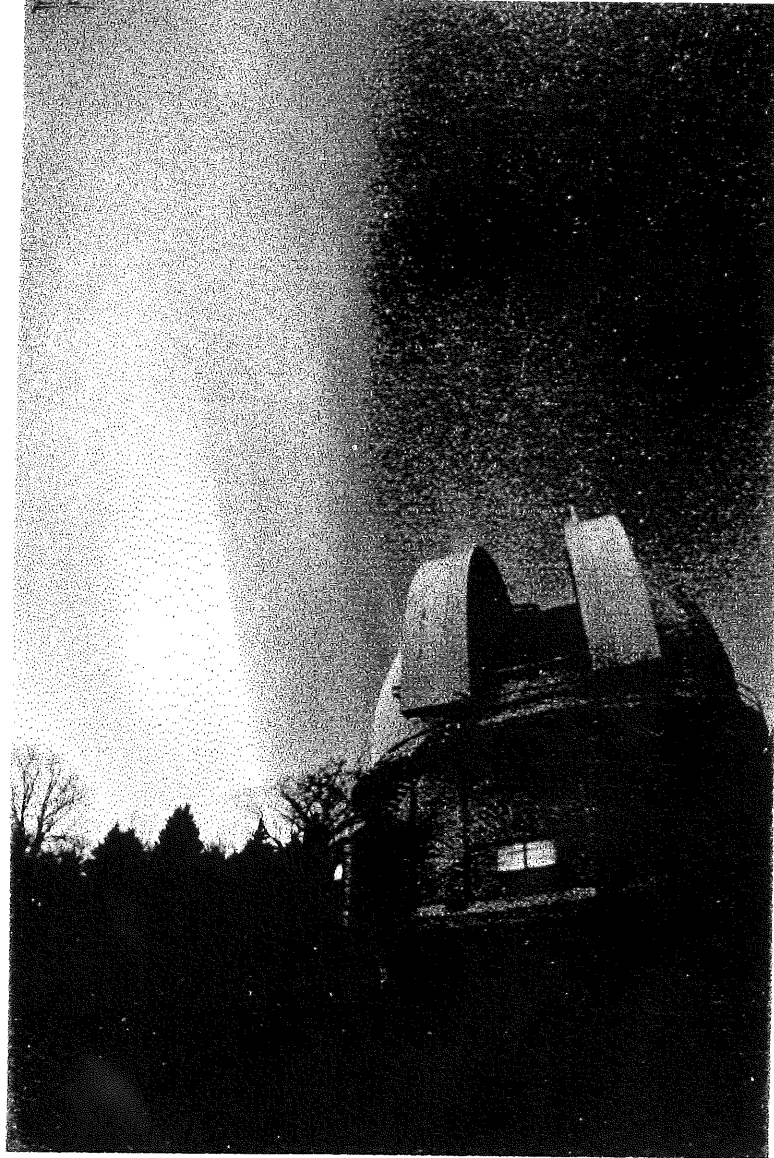


THE DAVID DUNLAP DOINGS

November 29, 1991

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Aurora Borealis over 74" Dome - 8 Nov 91

Photo: Ian Shelton

CONGRATULATIONS

John Percy recently received the Service Award of the Science Teachers' Association of Ontario, in recognition of his many years of service, including the honorary presidency (1988-91).

POTPOURRI

A group of 60 members of the Royal Canadian Institute's Youth Science Adademy had a very successful visit to DDO on October 19, with Brian Beattie, John Percy, Ernie Seaquist and Jim Thomson playing host.

Simon Lilly addressed a joint meeting of the Royal Canadian Institute and the RASC on November 24, on the topic "Long Ago and Far Away: The Origin of Galaxies".

Alexander Malachowski, a distant cousin of Stefan Mochnacki, stayed with the Mochnacki's in 1984 and was shown around the Observatory. He later published an article about his visit. On the 26th of November, he presided over the inaugural session of the new Polish parliament, as acting speaker appointed by Lech Walesa.

CURRENT FOURTH-YEAR ASTRONOMY STUDENTS

There was a time a good many years ago when our fourth-year undergraduates were very much a part of the departmental family. Subsequently, when undergraduate education here went cafeteria-style, the group lost much of its identity, and even in later years when more structure returned the old camaraderie was not quite the same. To help develop that and make us all aware of who the fourth-year students are we list their names here:

Tim Boychuk
Devon Hamilton
John Januszczak
Bernd Lehle
Charles Pinnegar
Charles Shepherd
Eric Tittley

Congratulations to Charles Shepherd for winning the John Pounder scholarship and to Eric Tittley for winning the H.S. Robertson scholarship. Also, Sudharshan Sathiyamoorthy (a 3rd year student) won the John Pounder award.

COMINGS AND GOINGS

John Percy attended the 80th anniversary meeting of the American Association of Variable Star Observers (AAVSO) in Cambridge MA, October 25-27. He presented a paper (with summer student Li Sen) on "Analysis of AAVSO Visual Observations of Small-Amplitude Red Variables: An Autocorrelation Approach". At the meeting, he completed a two-year term as president; his successor is Dr. Martha Hazen, CfA.

John Percy gave a talk on "The Scientific and Educational Programs of the AAVSO" at the University of Texas, Austin, where he was representing Erindale at a conference on TA training. Recent U of T graduates James DiFrancesco and René Plume are alive and well there, and finishing up their MSc programs.

Andre Chang (Woburn C.I., Scarborough) is working with John Percy on a project on RV Tauri stars, through the University of Toronto Mentorship Program. Andre is an outstanding student who has placed in the top few in major mathematics competitions in Canada and the US.

John Percy addressed the Niagara Frontier Council of Amateur Astronomical Associations on November 2, on the topic "Science with a Small Telescope".

Bob Garrison went to Baja California (San Pedro Martir) for an eight night observing run at the Mexican National Observatory. The weather was good - only one night lost to clouds. A very interesting peculiar star was observed. It is a carbon star with very weak metallic lines, [Fe/H] about -3. Its temperature is about K0 and it is probably a subgiant, though the luminosity is uncertain because of the extreme weakness of the lines.

Bob Garrison was in Montreal 21 November for a "site visit" for the FCAR grant to Observatoire Mont Megantic (Fonds pour la Formation de Chercheurs et l'Aide a la Recherche).

As part of the 20th anniversary of our operation in Chile, Antonio Urrutia-Aninat, the lawyer representing the University of Toronto in Chile, visited Toronto 9-15 October. His only previous visit was in 1972, when the University of Toronto Southern Observatory was just getting underway. He was entertained this time by U. of T. President Rob Prichard, by Jim Keffer (Vice President, Research) and by Elizabeth Wilson (Director of Development) as well as by Bob Garrison and the rest of the department. A happy coincidence was the occasion of the granting of an honorary degree to the King of Spain, which Sr. Urrutia and his wife attended with Bob Garrison.

Brian Glendenning "returned to the cold" from 75° F Virginia weather to continue work on his Ph.D. thesis with Phil Kronberg. We're sorry to see him leave (again), but look forward to his next temporary stopover. Brian was here for 6 weeks, until November 24th.

Phil Kronberg will spend some time at the Owens Valley Radio Observatory in early December to prepare for the NSERC site visit for the U. of T. Caltech Major Installation Grant Proposal and to advance our joint collaboration plans.

Ian Short and John Lester had a mostly successful observing run at the Canada France Hawaii telescope on the 23 and 24 of October. They managed to obtain useful spectra of several stars at five microns from the finicky Fourier Transform Spectrometer.

GASA Gossip

Mike Fieldus

Winter is here, and we have now settled into the usual school term routine of classes, working late at night to avoid undergraduates, and wondering who all the new people walking around the department are. In fact, they are the new graduate students this year who, after being introduced during the first week of classes, disappeared into the black hole of term work and are only rarely seen at odd hours (and in odd circumstances, like racing round the halls in rolling chairs). A major new development this year has made meeting these people substantially easier and more forgiving.... The department has a new lounge! Finally the hallway on the 15 floor was scrapped as a recreational area, and the old meeting/lecture room on the 14th floor (1422) has been converted into a lounge. Surprisingly enough, this simple change from a roof top dungeon to a reasonable room has made all the difference in department interactions, at least from a student's point of view. We actually see some of the faculty once in a while (except for Howard, of course, but that is okay). The new people, not realizing they are supposed to do anything different, regularly meet there and are pretty much known by all the department (for good or bad). Omar has personally taken it upon himself to make the lounge a success, and has not been seen anywhere else in the building since the room was converted. We have even tried to re-implement the 3:30 coffee hour each day. This was a great success on the first day, when free cookies were offered, and again several days later when Jean-Louis advertised free Belgium Chocolates. Other than those two instances, we can only say the event is slow in establishing itself. But for now our only worry is how to get Omar back to doing some work again!

There are now two students using the twin photometers at the observatory for their research, which means we can add two new definitions to our complement of "acceptable observing conditions". The original definition of photometric was slightly altered a few years back in order to facilitate data acquisition in a particularly large AST225 undergraduate class (the observing course). Applied to downtown Toronto only, the adage "If you can see a star, you can do photometry" seemed to give reasonable results, at least among the undergraduates (who, as you know, often apply some rather bizarre corrections to their data, but always come out with the right answer!). We can now add to these definitions Hendrymetric, which is the downtown photometric rule applied to DDO and the twin photometers, and Trudelmetric, which extends the rule to include the sun as one of the acceptable visible stars.

Late one night, after the clouds had ended my observations with the 74 inch, I noticed on my way back to the main building that the twin's were still open. I knew Jean-Louis had told me he could observe through much harsher conditions than I could, but I was shocked to see he could still work when we could not even see stars with the 74 inch! I entered the main building, only to see JL sitting in the kitchen, reading and eating his lunch! My offhand comment about us having to close up the 74 because of the sudden rain got him moving faster than I had ever seen him move before, or since! Needless to say I was not too popular when he discovered it was only cloudy.

TA WORKSHOP

Bill Clarke

A group of almost twenty staff and graduate students participated in a workshop on teaching and student counselling earlier this month. Organized by a committee chaired by Maurice Clement, the workshop sessions concentrated on the new Handbook for Teaching Assistants (and Campus Observers) prepared by the committee, and on developing effective teaching and communications skills.

While the time available was too short to cover all the topics we would have liked, there was lots of valuable discussion and important questions were raised which have already had an impact on our undergraduate teaching programme.

Next year we hope to be able to arrange a similar workshop at the beginning of term to give all members of the department as well as incoming graduate students a chance to explore new approaches and examine teaching strategies in the light of the changes which are being introduced to the undergraduate course offerings.

LETTERS

Dear Don,

I had a brief brush with fame last month when a paper that I wrote in Nature received a lot of press coverage. I heard it even made it to the Toronto Star in Terence Dickinson's Oct 20 column. Wow!

Other than that life is normal. I'm in the second year of a three year postdoc at NRAO.

Dale (Frail)

Professor G. A. Bakos of the University of Waterloo

Don MacRae

A colleague and friend of long standing, and one of the earliest Ph.D. graduates of this Department, Gustav Alfonz Bakos died suddenly on October 1, 1991.

Gus was already working at the Observatory when I came in 1953. He was a refugee without resources, from Czechoslovakia, and Jack Heard, then the Director, did what he could to find a niche for him. After having graduated from the University of Bratislava in 1943, Gus had spent two fruitful years at Leiden Observatory. He had a sound background in classical astronomy and was proficient in several languages. He was a great help in many ways in those quiescent Observatory years.

Gus formally began his graduate work here in 1952. He made use of the Hilger Spectrograph on the 74-inch and a newly constructed (by young Frank Hawker) photoelectric photometer on the 19-inch. This was our first graduate research involving photoelectric photometry at the DDO. It was a study of the luminosities and magnitude/colour differences of 75 visual binary pairs. Bev Oke, before he left for Cal Tech, was his initial supervisor. It is worth remarking that Gus was one of the first to capitalize on the fact that visual binaries can be used for stellar evolutionary purposes by fixing coeval points in a colour-luminosity diagram.

By modern standards Gus's life as a graduate student was wretched. In those days there were no "teaching assistantships", no Chant, Helm, or Reinhardt Fellowships, no research grants, not even the "Indians and Chiefs". He was too old for the scarce equivalents of our present-day NSERCs. How he made ends meet I do not know. Thankfully, there was the Frank S. Hogg Memorial Fellowship, very recently established, and I believe that Gus was the first recipient. Also there was a disused wooden shack some distance away in the fields which provided Gus with a place to sleep. In the very coldest months perhaps he slipped into the furnace room in the Observatory basement or could find temporary accommodation in one of the houses on Hunt's Lane (now Hillview Drive). Gus became a Canadian citizen in 1956.

In early 1959, not long after Sputnik and upon the completion of the work for his degree, Gus went to the revitalized Smithsonian Astrophysical Observatory to help start up Project Moonwatch, the first American effort to track earth satellites. Later he was at Northwestern University in Evanston, Illinois; there, in 1962, he met and married his wife, Anna. Gus took up his position at the University of Waterloo when it began its very successful program in astronomy in 1966. He was a frequent user of the 74-inch telescope over a number of years and he remained active in teaching and observational research until the time of his death.

OBITUARY/NÉCROLOGIE

Albéric Boivin (1919-1991)

Jean-Louis Trudel

Doctor Albéric Boivin of Laval University, professor emeritus of the science and engineering faculty, died in Québec City, on August 8, 1991, after an illness of a few months. His scientific career spanned more than 40 years, most of which were spent within the confines of the Department of Physics of Laval University.

Doctor Boivin gained fame for his research in optics, and became the founder of the LOH, which later metamorphosized into the LROL and finally the COPL. He also played a seminal role in the fostering of an astrophysics section within the physics department, from the point of view of both research and teaching. An amateur astronomer since his teen-age years, he had spent many of his free hours on the study of the sky and the construction of telescopes. From 1950 to 1960, he taught a course in elementary astronomy at the Collège universitaire Laval. In the physics department, he led a group of professors who worked to implant this new field of research and study. Their common efforts were rewarded when the University decided to build an observatory in Saint-Elzéar de Beauce which was inaugurated in October 1971. It was used for scientific research for a few years, becoming an annex of the Mont Mégantic Observatory in 1978. Since 1975, it has been opened to the public during the summer as part of an introduction to amateur astronomy. The Mont Mégantic Observatory itself, operated jointly by Laval University

and the Université de Montréal, came about as the result of lengthy talks in which Doctor Boivin was among the representatives of Laval University. The opening of the new observatory coincided with the hiring of many professional astrophysicists by the physics department.

Albéric Boivin (1919-1991)

Le docteur Albéric Boivin, professeur émérite de la Faculté des sciences et génie, est décédé à Québec, le 8 août 1991, après quelques mois de maladie. Sa disparition met fin à l'une des carrières scientifiques les plus brillantes et les plus fécondes qu'ait connues le Canada français. Cette longue carrière de plus de 40 années consacrées sans relâche à l'enseignement et à la recherche s'est déroulée entièrement, à part quelques séjours aux États-Unis et en Europe à titre d'associé de recherche ou de professeur invité, dans le cadre du Département de physique de l'Université Laval.

C'est surtout comme chercheur en optique que monsieur Boivin s'est fait connaître. Véritable visionnaire dans un domaine qui semblait assez peu prometteur au moment où il s'y est engagé, il a été le premier instigateur et la figure de proue du développement de cette discipline dans notre milieu. Ses premiers travaux théoriques sur la diffraction des ondes lumineuses, qui remontent à la fin des années 40, ont constitué la première étape de ce développement. Ces études furent par la suite conjuguées avec les travaux sur les micro-ondes entrepris par d'autres membres du département, formant un noyau initial qui a grossi peu à peu pour devenir, vers le milieu des années 60, un groupe de chercheurs compétents dans tous les domaines de l'optique et capables de participer activement au développement fulgurant que cette discipline a connu à partir de cette époque. Le groupe se donna alors une organisation formelle, et le professeur Boivin devint le directeur-fondateur du Laboratoire d'optique et d'hyperfréquences (LOH), devenu par la suite le Laboratoire de recherches en optique et laser (LROL) et connu maintenant sous le nom de Centre d'optique, photonique et laser (COPL), ces changements de noms successifs reflétant l'évolution rapide de la discipline. (...)

Le docteur Boivin est aussi à l'origine du développement à l'Université Laval d'un autre secteur important de l'enseignement et de la recherche, celui de l'astrophysique. Passionné d'astronomie dès son adolescence, il avait consacré une bonne partie de ses loisirs, au cours de ses années de collèges, à l'étude du ciel et à la construction de télescopes. Pendant une dizaine d'années, de 1950 à 1960, il donna un cours d'astronomie élémentaire au Collège universitaire Laval. Au Département de Physique, il fut le leader du groupe de professeurs qui travaillèrent pendant longtemps à promouvoir l'implantation de ce nouveau champ d'étude et de recherche. Leurs efforts finirent par être couronnés de succès lorsque l'Université décida, à la fin des années 60, de construire un observatoire à Saint-Elzéar de Beauce. Inauguré en octobre 1971, cet observatoire servit pendant quelques années à des travaux de recherche. Depuis 1975, il est ouvert au public durant l'été, dans le cadre d'un programme d'initiation à l'astronomie populaire. À partir de 1978, il est devenu une annexe de l'Observatoire du Mont Mégantic, opéré conjointement par l'Université de Montréal et l'Université Laval, en vertu d'une entente intervenue après de longs pourparlers auxquels le professeur Boivin participa comme représentant de l'Université Laval. L'ouverture du nouvel Observatoire coïncida avec l'engagement d'un groupe d'astrophysiciens professionnels.

Fernand Bonenfant

(Reprinted from *Au fil des événements*, Université Laval: 19 septembre 1991, p. 12)

REVISIONIST'S CORNER

Kepler's First Law (of Ambiguity): The orbits of planets are circles but are ellipses, with the Sun as central focus. (AST100)

Kepler's First Law (of Geometry): The orbits of planets are oval and ecliptic. (AST100)

- Submitted by J-L Trudel

PAPERS SUBMITTED

**PREPRINTS BY FACULTY AND STUDENTS RECEIVED
IN THE ASTRONOMY LIBRARY**

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Eales, S., *Direct construction of the galaxy luminosity function at $z \approx 0.4$* David Dunlap Observatory, University of Toronto, 91-1023 24-Oct-1991.

Kronberg, P.P.; Perry, J.J.; Zukowski, E.L.H., *Discovery of extended Faraday rotation compatible with spiral structure in an intervening galaxy at $z=0.395$: new observations of PKS 1229-021* David Dunlap Observatory, University of Toronto, 91-0922 27-Sep-1991 .

Lilly, S., *Deep galaxy surveys* David Dunlap Observatory, University of Toronto, 91-1070 5-Nov-1991.

Lopez-Cruz, O.; et al, *Fast spectroscopic variability in Ap stars I. HD 11503* David Dunlap Observatory, University of Toronto, 91-1116 12-Nov-1991.

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Seaquist, E.R.; Taylor, A.R., *Observations of symbiotic stars at mm and sub-mm wavelengths* David Dunlap Observatory, University of Toronto, 91-0931 1-Oct-1991.