



THE ^{DAVID} DUNLAP DOINGS

Vol. 22, No. 2

February 15, 1989



Letters to the Editors

Dear Editors:

Just to make you realize that somebody is not apathetic I am writing a letter of complaint. I notice with dismay that you have again omitted to put the issue number and date on the cover of the doings. "Frankly, I'm surprised at you! In this institution of higher learning where a good example...blah...blah...blah..."

Yours truly,

Marlene Cummins

Finding Chart



1.D.Blanchard	2.D.Earlam	3.J.Pimental	4.F.Hawker	5.J.Lester
6.S.Chew	7.L.Carriere	8.T.Kroeker	9.M.Clement	10.S. Bolton
11.J.Tryggve	12.F.Unwin	13.B.Sloan	14.Y.Zhan	15.F.Dubinski
16.I.Short	17.B.Hill	18.C.Clement	19.T.Bolton	20.M.Cummins
21.L.Oattes	22.G. Li	23.A.Ridder	24.J. Percy	25.Diane
26.R. Carlberg	27.G.Seaquist	28.A.Udalski	29.S.Rucinski	30.I.Shelton
31.E.Zukowski	32.B.Beattie	33.E.Oostdyk	34.S.Mochnacki	35.P.Kronberg
36.S.Steff	37.R.Diamond	38.J.Thomson	39.M.Thomson	40.R.Straker
41.D.Brückner	42.R.Lyons	43.J.Dubinski	44.P.Ortiz	45.J.Harper
46.A.Sigut	47.M.Fieldus	48.J.English		

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CONGRATULATIONS

To Dimitar Sasselov who, over the Christmas holidays, defended a thesis (“The UU Her Stars: Variability and Origin”) and was awarded an advanced graduate degree in Bulgaria.

To Dick Bond of CITA who was been awarded an E.W.R. Steacie Memorial Fellowship by NSERC. Congratulations are due not only to Dick, but also to Don Vandenberg at U Vic. - two Steacies for astronomy in the same year!

To Nick Kaiser, also in CITA, who was given the Warner Prize from the American Astronomical Society. The prize is awarded to young scientists for their outstanding contributions to astronomy.

And still more awards to CITA fellows! Arnold Boothroyd and Rachael Webster have been given URFs by NSERC - this was the final year of the program. Both are to be held in CITA.

COMINGS AND GOINGS

Esther Oostdyk, our triple-threat staff member (she knew the inner workings of the Observatory, the DA, and the computer), accepted a position in Department of Chemical Engineering.

Dail Frail spent the week of January 22 to the 28th at Cornell with Jim Cordes doing Monte Carlo simulations of their pulsar data.

John Percy and Dimitar Sasselov attended a workshop on “Astroseismology” at the University of Vienna, Austria, on December 5 to 7. Toronto graduate Jaymie Matthews (B.Sc. 1979) was a prominent contributor to the workshop sessions; he is now an NSERC PDF at UBC.

Bob Garrison spent Christmas in Chile, observing with the UTSO 60-cm telescope. He observed on Christmas eve when all the other telescopes on the mountain were closed down and reports that “the sky was perfectly clear and the seeing was incredibly good, about 1/2 sec, all night”.

Prof. Gladys Vergara, Director of the astronomical observatory in Montevideo, Uruguay, paid a visit to DDO in January. Accompanied by her daughter, Prof. Vergara was shown the 74”, the twin-photometers, etc. She was most impressed with our facilities. The reality of life in her country makes doing astronomy a struggle, but a struggle that Prof. Vergara strongly believes is worthwhile. Tom Bolton commented that it was the first tour he has given that concluded with a kiss (actually, two kisses).

POTPOURRI

John Percy gave the after-dinner talk at the annual banquet of the RASC Ottawa Centre on November 15; topic: "Variable Stars and the AAVSO".

Stefan Mochnecki gave a seminar to the Computational Physics group at the University of Toronto on January 30th, entitled "The Sun 386i Workstation".

John Percy, as part of his school liaison activities, addressed a group of 30 senior science students at Riverdale Collegiate on January 13, and a group of 100 "gifted" senior elementary school students in the Peel Board of Education on January 31, in each case on the topic of "The Scientific Search for Extraterrestrial Life".

Bob Garrison gave a non-astronomical talk on the "Political Situation in Chile" to about 300 people in the Continuing Studies "Lunchtime Learning" programme (20 Jan). He also spoke at a lunchtime meeting of the Southam Fellows, which is a group of media (all types of media) people who have been awarded the fellowships to take a year off to take courses at U. of T. During the year, they live at Massey College and partake of the University life. The programme is certainly a good idea, and must benefit U. of T. in the long run.

Pulsar Discovered in SN1987A!

As we were going to press news of this exciting discovery came in over e-mail. U of T astronomers were involved, as Bob Garrison describes below. But first, the original message:

On Wednesday, February 8, a telegram was submitted to the IAU reporting the discovering of a 1968.629 Hz (0.5 ms) optical pulsar in SN1987A!! The discovery was made in 7 hrs of data obtained 18 January 1989 with the CTIO 4m telescope. The data were taken at 5Khz resolution and analyzed in 0.5 hr segments. The signal at 1968 Hz was present in all data segments with confidence levels ranging from 11 to 37 sigma (power levels between 80 and 700, with P(noise)=1). Significant power was seen at the aliased 1st and 2nd harmonics. The pulse shape was sinusoidal and had a constantly varying amplitude between 18th and 19th magnitude. The signal varied smoothly by $3e-3$ Hz about 1968.629 Hz, in a manner consistent with an 8 Hr period binary period! Included authors on the telegram : J. Kristian, J. Middleditch, C. Pennypacker, J. Imamura, T. Steiman-Cameron, I. Shelton, W. Kunkel, D. Morris, R. Muller, S. Perlmutter, S. Rawlings, T. Sasseen, I. Tuohy.

From rG:

The "Pulsarator" was used by Ian Shelton and John Filhaber on the University of Toronto Southern Observatory's 60-cm telescope at Las Campanas from April 1987 until July 1988, when we ran out of photons; it was then moved to the Tololo 4-m telescope. There were several hints at periodicity in the data, and we all (Ian, John, Carnegie staff, Urrutia and Garrison) scrambled (under pressure from Pennypacker) to confirm them, but all turned out to be insignificant and disappointing. Congratulations to all concerned. This is part of what makes astronomy so exciting.

WE NEED A BIGGER TELESCOPE, so we don't have to pass on exciting possibilities to others with bigger guns. In the photon game, bigger does make a difference.

From Our Far-Flung Graduates

Greetings from the "Big Peach", Atlanta, Georgia. I'm still alive and enjoying receiving the Doings. The recent events in my life:

- I married Rebecca Bays (from Austin) on May 14, 1988, in a ceremony at the DDO Library (ever following in the footsteps of Bln).

- Rebecca and I moved to Atlanta in September, 1988, and I have now started as an Assistant Professor at Georgia State University. There is a lively interest in stellar astronomy here with Hal McAlister's speckle interferometry group and Ingemar Furenlid's work in high dispersion spectroscopy.

- I have been awarded an AAS Chretien Grant to pursue work on pulsation and mass loss in O type stars, a project which has developed from my involvement with the O Team (Alex Fullerton, Tom Bolton, and a cast of near thousands).

All best wishes for 1989 to my friends in TO!

Cheers,

Doug Gies (PHYDDG@GSUVM1)

...and from Our Former Staff

We sometimes wonder what happens to some of the support staff who leave us after a number of years. The editors recently received a letter from Anson Moorhouse, who was photographer, research assistant and night assistant from 1964 to 1972. It is interesting to note that Anson is still involved in Diagnostic Imaging, though the medical establishment must pay a LOT better than astronomy these days. We're sure that what he learned while with us has helped put him where he is now. Anson says that he reads his DOINGS with pleasure and passes them on to at least 2 others.

He writes that he "truly misses the noon-time volleyball games and riding with Dave Earham by bicycle from Aurora to THE HILL." After leaving here, he worked as a technician with GE/Medical Systems in the Toronto area, until 1975. During this three-year period, he ignored several approaches from a competing company (CGR, medical division of the French Thomson-CSF), but in 1975 accepted an attractive sales position from them and moved to Edmonton. In 1982, he went back to GE, but stayed in Edmonton, working in x-ray and CT service. From 1986 to 1988, he was Service Supervisor with Siemens/Medical, also in Edmonton. Late last year, he returned to Toronto with his family and is associated with the Clinical Engineering Department of Queensway General Hospital.

During the years in the Edmonton area, the Hube family became their closest personal friends and are sorely missed now that they have returned to Toronto. The Moorhouse family consists of two sons (now 20 and 14) and a daughter who is nearly 10.

One final anecdote: Anson says "I had to come up with a password (not that there is a great deal of security, but the programme requires it), and my old observing initials (Mse) resurfaced for the first time in close to 20 years!"

ROADRUNNERS ARE HERE

by Stefan Mochnacki

In the last few months Maurice Clement and Stefan Mochnacki have taken delivery of Sun 386i Roadrunner workstations, with one for Ernie Seaquist to follow. These 386-based computers are full UNIX workstations which also run PC software, with a power equivalent to one to two VAXen, and can be used as multi-user systems.

The one at the Observatory (“centaur”) sits in Mki’s office, but is the server for five PC’s. Bob Garrison has acquired the disk drive, which will contain his spectral classification database and is accessed from his PC. The thin-wire Ethernet at DDO will soon also include the new PDS controller, an AST 286 with a 9-track tape drive, and the data acquisition PC in the 74- inch dome. The Electronics Shop development PC and a CAD-oriented machine operated by Karl Kamper will round out our initial network, running Sun’s PC-NFS networking software. A Serial Line Internet Protocol (“SLIP”) connection between “centaur” and the downtown Sun 3/110 image processing workstation “lynx” will handle electronic mail and low-volume file transfers.

The software gurus at Kitt Peak National Observatory have already ported the IRAF image processing package to the 386i, and we expect to try it out this summer. At present, the PC version of RETICENT is being used to reduce and analyze data from the Photon Counting Spectrometer. The same code runs on the PC’s and on the 386i.

Ct’s Roadrunner “pegasus” is connected to the backbone Physics/Astronomy Ethernet, which in turn is directly connected to the Cray front end. With the forthcoming switch of the Cray to a version of the UNIX operating system, “pegasus” will make full use of the super-computer’s power and its own storage, communications and graphics facilities.

GASA Gossip

by Mike Fieldus

Well, what’s new this week, eh? I just got back from an observing trip to DAO. I had a marvelous time, they really have a great operation going out there, I was very impressed (for what that is worth). One of the most impressive aspects was the foresight shown by some unknown staff member. On the wall of the coude room in the 48” telescope is a memo to all observers, saying something like “ This is Victoria, it rains a lot here. Quite often rain showers blow in from an unexpected direction. Keep a constant eye on the sky. THERE IS NO EXCUSE FOR LETTING THE TELESCOPE GET RAINED ON!”. Scrawled onto of this memo in large black letters are the words “Mochnacki, take note”.

I have some real gossip for you this week. Esther and Lee are getting married. Most of you will realize that this is just a formality, as they have been living together for a year now. It is interesting that even after this year together, they are the same fun people they always used to be. Unlike Bob and Laura, who have also been living together for a year. The best we can hope for from them is Laura to go for a quick beer with us while Bob does the shopping.

Constantly fighting the traditional poor grad student image, Brian and Marie Glendenning went out last week and bought a car. The rumors you hear about Marie going off the deep end and driving everywhere are true. Apparently she takes the car to the mini-mart in the lobby of their building. Most cars these days, initially at least, come equipped with plastic protectors under the front bumper. Nominally these are to keep mud and stuff from messing up the underside of the engine. In reality, they are supposed to break and make a loud noise when you drive over a curb, scaring you before you do any real damage to the car. You guessed it: these little items lasted less than a week on Brian and Marie's car. The funny thing is it was not Brian, who is just learning to drive standard, who broke them off, but Marie, who insisted on driving in a tight spot because "Brian was not yet good enough with the new car to do it safely."

PAPERS SUBMITTED

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Kamper, Karl W.; Leggett, David. Astrometric-spectroscopic binary star orbits, III: Alpha Ophiuchi and Delta Aquilae. 89-0059. 16 Jan 89.

Leonard, Peter J.T. Stellar collisions in globular clusters and the blue straggler problem. 89-0027. 4 Jan 89.

McLaren, Robert. Recent developments at CFHT. 89-0102. 27 Jan 89.

Zhan, Yin; Dyer, Charles C. An integral constraint on the N-point correlation function of galaxies. 89-0095. 25 Jan 89.