

Anecdotes from Astronomy-Physics Meetings: 1985-1996

by *Geoff Goodwin*

Question: "How many annual meetings have there been of the Astronomical Society of S.A. and the Australian Institute of Physics?" I was asked this quiz question by one of the twenty guests gorging themselves on the sumptuous banquet at the Bangkok Restaurant on Wednesday 7th August before the latest joint meeting. I pointed across the table to Ray Sharples, enjoying his glass of wine, and said: "He's our 13th speaker, so I hope he's not superstitious." Ray shook his head vigorously and continued to enjoy his wine. Later in the Kerr Grant Theatre of the University of S.A., our traditional venue for the annual joint meeting of the ASSA and the AIP, Dr. Ray Sharples gave another of the memorable talks on Astronomy. These have made the joint meetings the most popular occasions on the calendars of both the Astronomers and the Physicists.

The first joint meeting was held in October 1985, around the time when I became President of the ASSA, and was Chairman of the local AIP Branch. It was two months before Halley's comet, a barely visible naked eye object with the suggestion of a tail, caused great excitement with its first appearance in the heavens for 76 years, followed in March and April 1986 by its return as a fuzzy snowball. Our eminent speaker was **Dr. John Ables**, Director of the Parkes Radio Telescope (Australian National Radio-Astronomical Observatory). As well as predicting the intense scientific scrutiny of Halley by optical astronomers, Dr. Ables described how, for the first time, the comet would be studied by means of radio astronomy and by space probes (such as Giotto) from Europe, Russia and Japan.

The only lecture theatre available for this talk was on the fifth floor of the Playford Building in the Institute of Technology.

It turned out to be too small for over two hundred people who filled every seat, sat on steps in the aisles and overflowed into the adjacent corridor.

Some of the forty hopeful late-arrivals from the overtaxed dinner venue managed to squeeze into the lecture room, but others, including a close friend of mine and his wife, had to stand in the corridor. Our friendship did not survive the occasion, and he became an ardent critic of anything that Goodwin tried to organise from that moment onwards. Everyone else seemed to enjoy the meeting. We made sure that for later meetings, the lecture theatre was always big enough.

In June 1986, a fascinating and lively talk was given by **Dr. Andrew Prentice** of Monash University who, with uncanny insight, had earlier predicted with astounding precision the locations and masses of previously unknown

moons of Uranus. This had anticipated the subsequent discoveries of the Voyager 2 spacecraft in January 1986. Andrew, the outspoken battler, had in the best Aussie tradition confounded and contradicted the scientific "experts"—and his predictions were correct! His theory was based on an extension of the original nebula hypothesis by Laplace. Prentice's theory affirmed the chemical composition and orbital structure already known for the regular satellite systems of Jupiter and Saturn and accurately predicted these properties for Uranus.

Andrew's talk was very entertaining, and from my perspective it was rather like an Abbott & Costello comedy. Andrew, like the "straight man", Bud Abbott, was continually ridiculing and "putting down" his short plump partner, Lou Costello, represented by myself.

Every minor hiccup by me in operating the slide projector or switching the theatre lights became, through Andrew, a source of amusement for the audience. Not that I minded at all, because I am a notorious "ham", in public, and any acknowledgment by the audience is gratefully received.

At one of the later talks (I can't remember which one), the slide projectionist's worst fears were realised in a nightmarish episode. Each time the carousel holding the slides rotated, the projector hurled a slide two feet into the air like toast from a pop-up toaster or an erupting volcano on Mount Ruapehu. In the few minutes needed to remedy the fault, the speaker's train of thought vanished and my reputation on technical matters sank to its lowest ebb. Some years ago a technician, Anthony Duffy, used to help in operating the projector. His name became a sort of legend to the astronomers, mainly because of the loud monosyllabic discussions that Duffy and I had across the inky blackness of a darkened lecture theatre, while slides were being shown. On the present occasion, derisive cries of, "Get Duffy!" rang through the darkness as I wrestled with the slide-throwing monster. My embarrassment was complete.

In the following years, attendances at these popular meetings averaged about 200 people, which is a tribute to the quality of the speakers and to the general interest of their talks. In March 1987, **Dr. Alan Wright** of the C.S.I.R.O.'s Division of Radiophysics spoke on "The Search for the Edge of the Universe". In June 1988, **Dr. John Davis** from the University of Sydney gave an account of "SUSI, the Sydney University Stellar Interferometer" in northern N.S.W. which has exceptionally great angular resolving power, and uses modern technology in overcoming problems posed by atmospheric turbulence. In August 1989, **Prof. Ron Ekers,** ►



► Director of the Australia Telescope described in his talk on "Revealing the Invisible Universe", how the old Melbourne telescope was being adapted for the study of dark matter.

In April 1990, we enjoyed a return visit by **Dr. Andrew Prentice** who confirmed that you can't keep a good man down, with a talk on "Neptune after Voyager 2 and the Origin of the Solar System". Again, Dr. Prentice's adaptation of the Laplacian theory correctly predicted the location, size and composition of Neptune's previously unknown regular satellite system, including Triton which proved to be a challenge to the theory.

Anyone who is clever at mental arithmetic may have been wondering, "How is it that if the first joint meeting was in 1985 and the most recent meeting was in 1996, Goodwin is saying that we have held thirteen meetings? Surely it should only be twelve annual meetings!" Perfectly true! Ten out of ten! Except that in 1990 we broke the "annual meeting" rule and had *two* meetings. In September 1990, **Prof. Tony McDonnell** from the University of Kent presented an up-to-date account of "Space Research and the Giotto Probe".

A talk in September 1991 was given by **Don Mathewson**, Professor of Astronomy at the Australian National University, and, earlier, Director of the Mount Stromlo and Siding Spring Observatories. Professor Mathewson argued that in order to explain the effect of the Great Attractor, the region of the local universe into which we are being attracted at high speed, it may be necessary to make a radical revision of our present concepts of the universe.

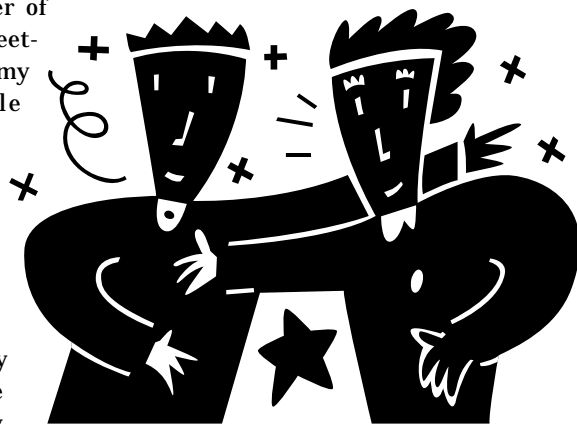
Perhaps our most eminent speaker was **Prof. Paul Davies**, the world-renowned author of many books on cosmology. Professor Davies had joined the University of Adelaide staff early in 1990, so I made a special effort to encourage him to give a talk to a joint meeting in 1991. All to no avail! Fortunately, Maxine O'Leary volunteered to approach him, and her obvious ample persuasive charms did the rest. Professor Davies gave a memorable talk in 1992 including some implications of cosmology, including the remote possibility of matter transfer, but only for minuscule particles and immeasurably small time intervals.

dark matter, the gravitational effect of which produced bending of light rays from distant galaxies.

Dr. Russell Cannon, Director of the Anglo-Australian Observatory, gave the May 1994 talk on "Star Clusters and Technical Developments of the Anglo-Australian Telescope". In particular, Dr. Cannon discussed the enormous improvement in the accuracy of colour-magnitude diagrams, the fact that abundances of key elements in globular cluster stars can be determined directly and that it is now possible to observe large samples of stars spectroscopically.

The September 1995 talk was by **Prof. Jeremy Mould**, Director of the Mount Stromlo and Siding Spring Observatories. He spoke about the "Expanding Universe and Measuring the Hubble Constant" which gives the rate of expansion of the universe. Current estimates of the Hubble constant place the age of the universe between ten and twenty billion years, but measurements with the Hubble Space Telescope are expected to provide a better estimate.

As organiser of the joint meetings, one of my pleasurable duties is to meet the speaker at the airport, and drive him to his hotel. The tricky part for me is to study



the appearance of all the passengers streaming through the revolving door in the arrivals section at the airport terminal. How do you pick an astronomer-physicist-academic from the rest of the air-travelling humanity? It's not easy to match a booming theatrical voice, heard only on the telephone, with a thin weedy-looking person in the flesh (as an hypothetical example only). "People spotting" is an acquired art, and I have managed up to this point without the need to hold up a name scrawled on cardboard in large coloured text letters. With Ray Sharples, recently, there was no problem at all, because I had cunningly asked him his height (5 foot six) and I had told him mine (5 foot seven), so we saw eye-to-eye immediately he emerged from the revolving door.

Dr. Ray Sharples gave the August 1996 talk on "New Light from the Cosmos and Astronomical Technology in the 1990s". Ray is on leave from the University of Durham and is working with the Anglo-Australian Telescope. He discussed recent important developments in optical astronomy, including the giant eight-metre diameter telescopes with mirrors constructed from an array of hexagonal segments, as well as fibre optics applied to multi-star spectroscopy and adaptive optics with feedback using laser "guide stars".

Invariably, the annual ASSA/AIP talks have been outstanding in their exceptional quality of presentation and in the topical up-to-date astronomy presented. We look forward to this long-standing tradition of joint meetings being continued well into the future. If members have suggestions for a good speaker in 1997, now is the time to tell me.



We purposely avoided advertising Paul Davies' talk too widely because of his phenomenal ability to draw a large crowd. In the afternoon, a couple of hours before the talk, we heard a persistent rumour that members of a philosophy club of the University of Adelaide were planning to attend en masse. We hastily changed the venue to the Adelaide Uni's Flentje Lecture Theatre which has seat-

ing for 320 people, and kept our fingers crossed. Fortunately, no more than 322 people attended and the two who had to stand were so enthralled by Paul Davies' presentation that they forgot to complain.

In June 1993, **Prof. Alex Rodgers** described how the Great Melbourne Telescope was being modified in the search for