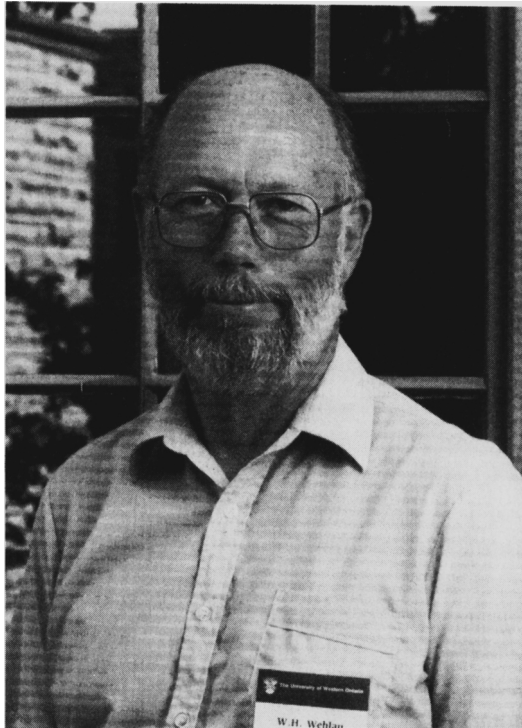


IN MEMORIAM WILLIAM “BILL” H. WEHLAU (1926 - 1995)



Dr. William (Bill) H. Wehlau – founder of the Department of Astronomy at the University of Western Ontario, moving force behind the construction of the UWO Observatory and a pioneer in the field of stellar surface mapping – died in late February in South Africa where he was attending a meeting on Astronomical Applications of Stellar Pulsations. Bill was to have spoken at this meeting on Stellar Surface Structure and the organisers have chosen to dedicate the meeting to him in honour of both his scientific

contributions to the field and the way he enriched the lives and careers of his many colleagues in the astronomical community.

Bill earned his Ph.D. at the University of California, Berkeley in 1953. He was briefly at the Warner and Swasey Observatory before moving to the University of Western Ontario in 1955. The next four decades would see the lasting effects of Bill's gentle hand on stellar astrophysics in Canada and the rest of the world.

In 1966, Bill's determined efforts culminated in the formation of the Department of Astronomy at UWO, and shortly thereafter, the University's 1.2-m telescope saw first light. Bill served as Head of the Department until his retirement in 1991. Despite its small size, the Department rapidly became recognised for its world-class expertise in studies of stellar astrophysics: from cool atmospheres to hot winds, surface magnetism to interior structure, and stellar variability at many timescales. The UWO Observatory also developed a strong reputation for high-quality *coudé* and Cassegrain spectroscopy, polarimetry, and globular cluster photometry. Some of the first efforts at stellar infrared spectroscopy in Canada were conducted there as well, with Bill's active participation.

Bill's impact extended far beyond his own Department. He served on numerous committees that were responsible for guiding the future of Canadian astronomy. In particular, he was heavily involved with the development of the Canada-France-Hawaii Telescope and served during its early years as Chairman of both the Scientific Advisory Council and the Board of Directors. More recently, he chaired the Canadian review committee for the Gemini International Twin-Eight-Metre Telescope project. He also spearheaded a project to develop a general-purpose spectropolarimeter which would be available to the Canadian community.

Bill also helped open the door to fruitful scientific collaborations between astronomers in the former Soviet Union and Canada, through formal exchanges between UWO and the Astronomical Council in Moscow, at a time when such interactions were hindered by bureaucracy and poor communications. Bill was one of the few western astronomers who observed with the 6-m telescope of the Special Astrophysical Observatory. The current state of cooperation between Canadian and FSU astronomers and our respective space agencies was at least partly fostered by Bill's spirit of openness in the days when the Iron Curtain was still closed.

Despite extensive administrative and teaching duties, Bill maintained an active research career which continued (and even accelerated) through his official retirement. His early work on least-squares analysis of pulsating star light curves laid the foundation for the period searching techniques we take for granted today. In the 1950's, he was also already obtaining high dispersion spectra of chemically peculiar stars, to search for rotational vari-

ability. In the 1980's, Bill's interest and experience in stellar pulsation and chemical peculiarity finally converged in the study of the rapidly oscillating Ap stars. He was one of the first to recognise the potential diagnostic power of this new class of rapid variables, while many astronomers remained skeptical about their reality.

Among his many scientific accomplishments, Bill's efforts to map the surface abundances of Ap (CP2) stars would certainly distinguish him as a pioneer. He had always shown great respect and admiration for the work of Armin Deutsch and his attempts to develop a technique for surface mapping of Ap stars. As with the roAp stars later in his career, Bill had the knack to recognise a potential astrophysical goldmine, taking a very early interest in looking for the line profile variations that should be visible because of the non-homogeneous distribution of abundances on the surfaces of Ap stars. At a meeting on Ap stars held in Baltimore in 1967, he delivered a paper on Chi Serpentis where he mentions looking for the expected line profile effects in his photographic spectra. Subsequently he was involved in one of the two major efforts to apply Deutsch's method to other Ap stars.

By the early 1970's, Bill had published (with Falk) a paper applying the Deutsch technique to line profile variations, with the hope of recovering surface information. Given the poor quality of the photographic spectra available at that time, the observations fell far short of the demands of the theory. At the same time, several Russian astronomers were developing digital computer techniques for inverting the information contained in stellar line profiles to obtain surface structure. One of them (Vera Khokhlova) approached Bill in 1979 to work with Rice to obtain new high-quality spectra of Ap stars with electronic detectors whose S/N and resolution would be adequate to test the new computer software. Thus began a very productive international collaboration which eventually expanded beyond Canada and Russia to include Austria, Finland and the U.S., and produced a series of papers on surface abundance maps and temperature maps of both hot and cool stars.

With such a track record of research and organisational skills, it was no surprise that Bill was elected Chairman of the IAU Working Group on Ap and Related Stars at the General Assembly in The Hague last year.

The world of astronomy has suffered a great loss with the passing of Bill Wehlau. His foresight made him a true pioneer in the field of stellar surface structure, at a time when nobody would have imagined an entire symposium devoted to that topic alone. His patience and quiet determination led to significant progress in the field, while his generosity and unassuming nature allowed others to share in his vision and accomplishments. In a very real way, we were celebrating many of those accomplishments when we gathered in Vienna in October 1995.