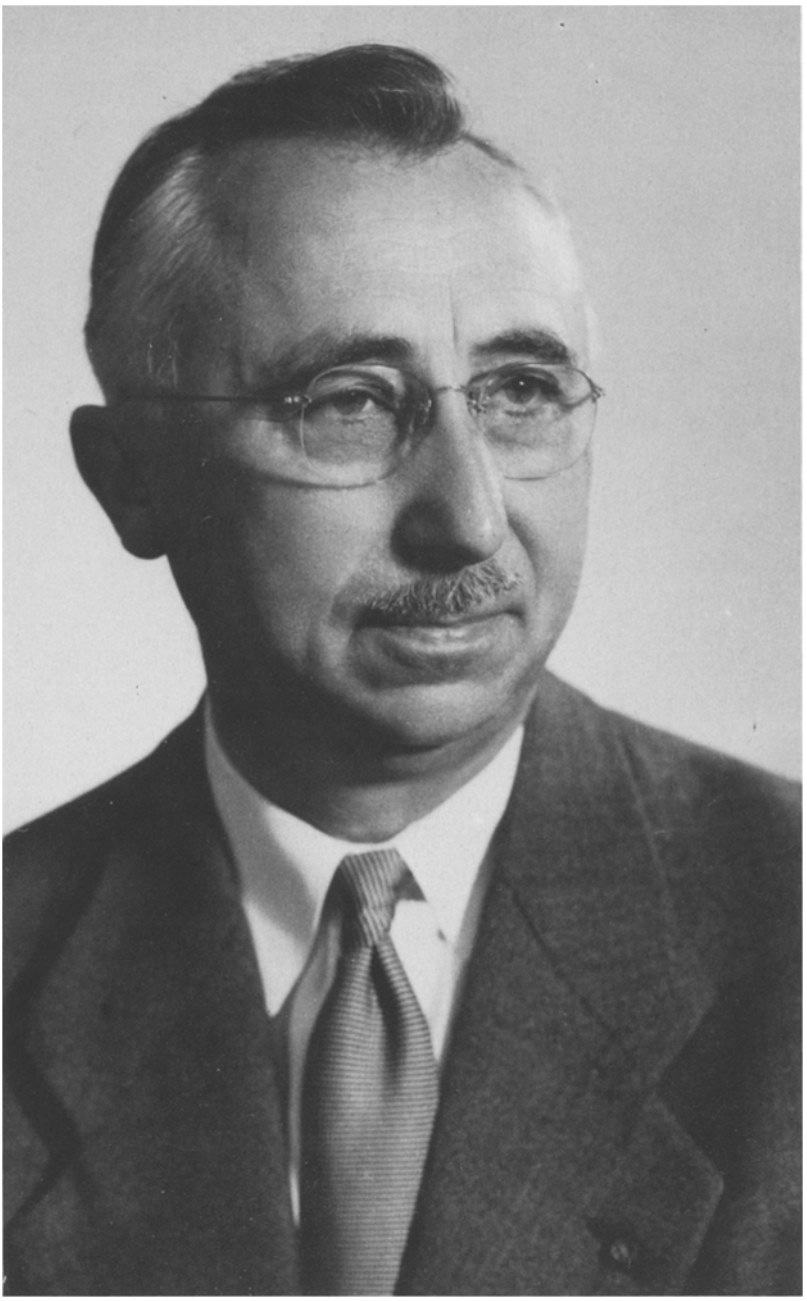

PROFESSOR POL SWINGS

(1906–1983)

IN MEMORIAM

POL SWINGS

(1906–1983)

Our editorial flags fly at half-mast to mourn the departure from our midst of Professor Pol Swings, senior member of the Editorial Board of our journal since its inception in 1968, who died on 28 October 1983, aged 77 years.

Pol Swings was born in Ransart, Belgium, close to Charleroi where he began high school in 1917 in very harsh conditions in the same 'Athénée Royal' as L. Rosenfeld, who was a year ahead of him. Both pursued their studies at the University of Liège where Swings graduated in 1927 with a memoir in the field of celestial mechanics and general relativity. He had been attracted to astronomy ever since he read Camille Flammarion's *Astronomie populaire* in his high-school days and, during the year 1927–28 which he spent in Paris with a fellowship of the Belgian Government, he frequently visited the Observatory of Meudon where he made his first direct contacts with spectroscopy and physical astronomy.

Back in Liège he founded a small of spectroscopy at the 'Institut d'Astrophysique' and then spent much of his time during the next two years in Warsaw working under Stefan Pienkowski on molecular spectroscopy and fluorescence phenomena, gathering results for a doctor's thesis in physics which he defended in Liège in 1931. The same year, as an advanced fellow of the Belgian American Educational Foundation, he met Otto Struve at Yerkes Observatory and this started a lifelong cooperation and friendship.

In Liège, where he was appointed as professor in 1932, Swings gathered students around him and the 'Institut d'Astrophysique' soon became a lively place, especially with Rosenfeld around for a good deal of the time, and with distinguished visitors like S. Chandrasekhar in 1933 and B. Edlén a little later. Swings also managed to get Boris Rosen to reinforce the spectroscopic laboratory which was mainly oriented towards problems of astrophysical interest. Many of the students were put to work on molecular spectroscopy in the laboratory or on studying the Sun and stars. One student, with the help of Rosenfeld, worked out the problem of molecular dissociation in cosmical conditions independently of H. N. Russell's simultaneous work. In 1937, Swings and Rosenfeld discovered the first interstellar molecule CH.

Swings also mastered atomic spectroscopy, as is shown by his early works with Edlén, Struve and others on the identification of lines forbidden or not forbidden in various stellar conditions, as well as by his analysis with Edlén of the spectra of Fe III, essential for the discussion of hot stars.

In 1939, Swings went to the U.S.A. with his wife, and was stranded there by the war in the spring of 1940. He put all his energy into his scientific work, thus starting a long, remarkable series of papers with Struve on very hot stars, symbiotic objects, novae, planetary nebulae, WR stars, spectrum variables, etc.

In 1941, while a Morrison Research Associate at Lick Observatory, Swings brought his ideas on cometary spectra into a final and detailed interpretation in terms of fluorescence in solar radiation, taking into account its depletion by spectral lines and Doppler shift due to comet motion. These ideas were also successful in other fields, such as the twilight radiation and sunlit aurorae.

From 1943 onwards, he participated directly in the war effort until, in 1946, with astrophysics again at the centre of his interests, he returned to Liège where with B. Rosen and some of his former students, he started reactivating the 'Institut d'Astrophysique', favouring new extensions towards solar physics and infrared, and towards theory.

Swings concentrated mainly on comets (a subject which attracted some of his best students and which led to the publication with Leo Haser, in 1956, of the magnificent *Atlas of Representative Cometary Spectra*) and on cool stars. Regarding cool stars, he developed a fruitful collaboration with A. McKellar, centering mainly on carbon stars and especially on the feature at 4050 Å, which is also a characteristic of comets. This turned out (following the laboratory work of G. Herzberg and A. E. Douglas in Ottawa and B. Rosen in Liège) to be due to C^3, a molecule which was suggested by Swings under the name of 'carbozone'.

Shortly after his return to Liège, in 1947, he was awarded the 'Prix Fracqui', one of the most coveted scientific distinctions in Belgium. In 1949, he launched the 'Colloque International d'Astrophysique de Liège' which met with immediate success. During the 1960s, he was instrumental in the planning and the organization of space research in Europe, and especially in Belgium, and added a new section on the subject to the 'Institut d'Astrophysique'.

His achievement as a scholar, teacher, and leader have been widely recognized. Becoming the Vice-President of the IAU in 1952, he was elected its President in 1964. Besides the 'Académie Royale de Belgique' which he entered in 1947, he was also a member of many distinguished companies in England, France, Germany and the United States and was a Doctor Honoris Causa of five Universities.

With his exceptional intellectual gifts, his generosity, his sense of tolerance, and his organizational skills, Pol Swings succeeded in putting the 'Institut d'Astrophysique' of Liège on the world map of astronomy, and helped in making it a place where some of us, at his side, have spent some of their best years in a wonderfully balanced atmosphere of work, mutual help and friendship.

He greatly appreciated the help of his devoted wife, Christiane, in so many of the details and cares of daily life and he took pride in the achievements of his son, Jean-Pierre, who followed in his footsteps.

Walking in the countryside, gardening, and amateur movie-making were among his favourite pastimes. Unfortunately, his last few years were clouded by Parkinson's disease, which he fought courageously for so long.

Requiescat in pace.

P. LEDOUX