

# Donat G. Wentzel

The renowned plasma astrophysicist and teacher Donat Gotthard Wentzel died of a rapidly developing cancer on February 20, 2013 at the home of his daughter, Tania DuBeau, in Glenwood, Maryland. Don did research on cosmic magnetism and electrical currents flowing in interstellar space and on the Sun, kinetic plasma physics and radiation theory. But he considered his educational activities more important. He received the Van Biesbroeck prize in 2003 for his long-term extraordinary and unselfish service to astronomy beyond the requirements of his paid position.



Don was born in 1934 in Zurich, Switzerland, where his father, Gregor Wentzel, was a professor of physics at the University. In the late 40s the family moved to Chicago before Don entered college. He quickly learned English and picked up what was needed to finish college and earn a PhD at the University of Chicago. During his graduate years, he spent a year in Leiden in the Netherlands and married Maria Mayer. After he finished his PhD in 1960, he worked for 6 years at the University of Michigan, becoming an associate professor in 1964. Finally, he and his family moved to Maryland, where Don was a professor in the Astronomy Department at the University of Maryland until his retirement.

Don's seminal work on cosmic-ray propagation made him known in a wide community. Proton resonant scattering by Alfvén waves led him to propose the concept of self-confinement of cosmic-rays in the Galaxy. In the 1970s, coronal heating caught his attention; he studied hydromagnetic surface waves, their coupling to other waves and their dissipation. He also became involved in kinetic problems of solar flare radio emissions and applied percolation theory to the development of solar active regions. Typical for his approach was the theoretical derivation of plasma phenomena from first principles. He did not just refer to the highly cryptic theories from laboratory plasma physics at that time, but wanted to understand physics thoroughly. There was always the question in his mind about how he would explain this to his students.

Combining his experience in science and teaching, he published a book on "The Restless Sun". It was named Book of the Year by the Astronomical Society of the Pacific in 1989.

A countless number of students remember Don fondly. He patiently supported young people struggling to enter science. Apart from his work with students and graduates in astronomy, he helped to develop an astronomy course for college students who would not be majoring in a science. This course at one time attracted over 3000 students per year at the University of Maryland. As part of this course, he developed student activities and lab courses based on astronomical photographs and other data. He stimulated similar courses nationally and internationally. This work took a large part of his time, therefore often only the summer months were left for research. Spending a half-year sabbatical in India opened his eyes to teaching astronomy in less privileged countries. He became involved with the Commission on Teaching Astronomy of the International Astronomical Union in the 1970s. As its president, starting in 1979, he was actively supporting the teaching of astronomy as a medium for science education in scientifically developing countries. This became a very important activity for him in the last years of his professional career. His main sponsor was the International Astronomical Union, for which he organized and/or participated as faculty of eight

International Schools for Young Astronomers. He supervised a visiting-lecturer program in Peru and Paraguay, and helped to develop astronomy in Vietnam, Morocco, Central America, and the Philippines. Tirelessly, he gave series of lectures during three-week visits in China, Egypt, India, Indonesia, Iran, Kenya, Malaysia, Sri Lanka and Vietnam. He initiated programs, negotiated annual programs, and identified suitable advisors. His goal was a sustainable development in education, and in many countries his work had an impact that is still growing. He was an ambassador of Western astronomy to the rest of the world.

Don Wentzel was a joyful and peaceful person helping everybody he met along the way. He was also a connoisseur of good wine. In his honor, his family asks that you buy a good bottle of wine, share it with somebody you love, and toast to your memories. Prost, Don!

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