

Evry Schatzman

A major figure in post-war world astronomy Evry Schatzman died April 25 in Paris, at the age of 89. He was born in Neuilly-sur-Seine, near Paris, France, on September 16, 1920. As a student of the Ecole Normale Supérieure in 1940, having studied fundamental physics, he was forced to move to Lyon to continue his studies because of the Vichy government anti-Jewish laws. It was there that he met his wife, Ruth Fisher. The newlyweds were able to take refuge from the turbulent events of that period at the Observatoire de Haute-Provence (OHP), thanks to the help of its courageous director, Jean Dufay. However Evry Schatzman was never to see his father again, who fell victim to the barbarity of the Auschwitz executioners. Evry Schatzman remained at the OHP until the end of the hostilities, under the name of Henri Sellier.

The library of the OHP led him to a critical reading, that of the record of a symposium organized by the German-born American astronomer Walter Baade (1893-1960) on "white dwarfs", the very condensed objects that stars become at the end of their life. Excited by this book, he imagined a description of the structure of these stars, which clearly explains their spectrum. This would be the subject of the thesis that he defended in 1946. The previous year, he had passed his physics *agrégation*, after finally returning to the Ecole Normale Supérieure, rue d'Ulm in Paris.

Joining the Centre National de la Recherche Scientifique (CNRS) in 1946, his path was then marked with a one-year stay at Princeton. The astrophysicist Lyman Spitzer (1914-1997) and the astronomer Martin Schwarzschild (1912-1997) were his mentors. He then worked in Copenhagen with Bengt Strömgren (1908-1987).

Evry Schatzman became the creator of the French school of theoretical astrophysics. He was by no means the first theoretician of astrophysics, but was the first to have felt the need for a rapid development of this subject in France, and the first to teach it and to guide the path of many young researchers, many of them to become involved, and some leaders, in space science.

From that moment on, his career path was straightforward. At first a researcher at the CNRS, he then also gave astrophysics courses at the Sorbonne, along with André Danjon, who occupied the chair of astronomy (the only one at that time in France). A few years later he himself became the first chair holder for Astrophysics created in France at the Sorbonne. He also taught regularly at the Free University of Brussels (ULB). He directed the majority of astrophysics doctoral theses defended in France - and often overseas - until his own students took over.

Evry Schatzman's research continues to provide important arguments and driving ideas to theoretical astrophysics. This is true of his concepts on the diffusion of elements in astrophysical environments, the thermonuclear origin of stellar energy, the propagation of seismic pressure and gravity waves through the mass of the Sun, or the evolution of stars.

Whether considering the inside of stars, their atmosphere, outer regions, or even interstellar or circumstellar environments, there is hardly a field that was not addressed by Evry Schatzman -- he had rare creative intuition and an acute sense of what phenomena are important or significant. He was one of the first to propose detecting antimatter from space, a very challenging experiment indeed which will hopefully soon be carried onboard the last flight of the space shuttle later this year. At the end of his career, he went back to his position of director of research at CNRS, so as to have the leisure to develop his ideas.

Evry Schatzman worked as a researcher and supervisor first at the Institute of Astrophysics of Paris (IAP), then, in 1969, at the Observatoire de Paris-Meudon, where he initiated the creation of the Laboratoire d'Astrophysique de Meudon (LAM) which he directed for several years and where many innovative space research ideas found their roots, such as for example, the detection of extra solar planets from space, being now performed by the CNES-ESA COROT mission. At the end of his official career he was at the Nice Observatory. But he returned to Meudon, and, still an active retiree he continued his research there on the physics of astrophysical environments.

In a career studded with accolades and awards, the distinction of which he was proudest was the CNRS gold medal, the highest scientific honor awarded in France.

Evry Schatzman was not a scientist who got lost in abstractions. Concerned about the changing world, still affected by the indelible memories of the years of war, it was only natural that he turned to political commitments. Although once a member of the French Communist Party, which earned him insults from some of his colleagues and closed the doors of the U.S. to him for many years, he left the party quickly, shocked by the excesses of Stalinism. But he retained a strong sense of activism which led him to become a union activist. He was also involved in a philosophical action-oriented school of thought and headed the Rationalist Union for a long time, an association that had been set up by Henri Roger and Paul Langevin.

He published several books in French: *Astrophysique générale*, *Les étoiles*, *Les enfants d'Uranie*, *Le message du photon voyageur*, *Origine et évolution des mondes*, *La Science menacée...* and in English, *White Dwarfs*.

In 2002 illness suddenly struck, prohibiting any substantial communication with his family and the outside world. The memory of him that will remain with us will not be that of the stooped old man he had become, but rather that of a dynamic, vigorous, sometimes ironic but always just human being – an exceptional man.

Jean-Claude Pecker, Professor Emeritus at College de France

Evry Schatzman

16 September 1920	Born in Neuilly-sur-Seine
1945	<i>Agrégation</i> of Physics (highest teaching diploma in France)
1946	Joined CNRS (Centre National de la Recherche Scientifique)
1969	Researcher at the Observatoire de Paris-Meudon
1970	President of the Rationalist Union
1983	Gold Medal of the CNRS
1985	Member of the French Academy of Sciences
25 April 2010	Died in Paris