Anton Oed (1933–2019)

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Anton Oed, a passionate inventor and a source of inspiration for many of us today, passed away on September 30, 2018. His introduction of Micro-Strip Gas Chambers (MSGCs) at the Institut Laue-Langevin (ILL) in 1988 was a decisive breakthrough in the field of radiation detectors. It demonstrated a significant gain in spatial resolution and counting rate, and the invention immediately stimulated the development of a new class of micro-pattern gas detectors (MPGDs).

Anton was born 1933 in Ulm, Germany and studied physics at the University of Tübingen. For his diploma thesis on “The double resonance spectrum of $^{23}$Na”, he received the prize of the Faculty of Mathematics and Natural Sciences of the University of Tübingen. In his doctoral thesis, again in atomic physics, he studied the double quanta decay of the hydrogen 2S level.

Anton arrived at the ILL in Grenoble in 1979 and set about developing the detector of the “Cosi Fan Tutte” spectrometer to measure the mass, charge and kinetic energy of fission fragments. The results obtained with this detector were so precise that it has been taken as a reference for several nuclear instruments in other institutes. Anton later started developing the MSGC technique to upgrade detectors of neutron diffractometers. Several ILL instruments are now equipped with MSGCs that have been in operation for more than 10 years, the first ones in 2000 being the D20 and D4 powder diffractometers.

The development of MSGCs for high-energy physics started at the beginning of the 1990s. Encouraging results were obtained by the RD28 collaboration at CERN, but the relative fragility of MSGCs under harsh irradiation conditions motivated the development of new detectors with improved robustness. Among these, Micromegas and gas electron multipliers (GEMs) have become very successful and are currently being implemented in various upgrades to the LHC experiments. MSGC detectors are also used to detect X-rays on ESA’s INTEGRAL telescope.

In 1997, Anton received the R. W. Pohl medal from the Deutsche Physikalische Gesellschaft for the invention of the MSGC, which is at the origin of the development of the Micro Pattern Gas Detectors. To honor his memory, the ILL has established a prize promoting his innovative spirit and the ability to solve technical challenges in the field of MPGD.

Memories of the technology’s development and of Anton’s personality were shared during a special session at the MPGD 2019 high-energy conference held in La Rochelle from May 5–10. He has always been a great inspiration to many of the collaborators working with him. We will always remember him as a very friendly and enthusiastic person, as well as for his kindness towards everybody.

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