Louis Michel 1923–99

Eminent French theorist Louis Michel died in December. Born in Roanne, France, he studied at the Ecole Polytechnique before carrying out research at Manchester, in the fledgling CERN Theory Group at Copenhagen and at Princeton's Institute for Advanced Study, before returning to France, where he held posts at Lille, Paris, the Ecole Polytechnique, and finally the Institut des Hautes Etudes Scientifiques at Bures-sur-Yvette.

His name will always be linked with his first major research success: the description of the decay spectrum of a muon into an electron and two neutrinos using a single “Michel parameter”. Corollary work on lepton polarization and isotopic parity (later known as G-parity) was soon brought to the fore with the discovery of parity violation in lepton decays. Extensions of his muon work subsequently bore additional fruit with the discovery of the tau lepton in 1975.

Other landmarks of Michel’s work include his framework for handling the analysis of polarized particles and the 1959 Bargmann-Michel-Telegdi equation describing relativistic spin precession in an electromagnetic field.

In the 1960s his counsel in the underlying theory of relativistic symmetries was much sought after. Later, his mastery of modern mathematics allowed him to make valuable contributions to studies of internal symmetries and spontaneous symmetry breaking, both in elementary particles and condensed matter physics. Most recently, he developed mathematical tools to describe crystals and quasi-crystals.

He played a major role in the rebuilding of postwar French theoretical physics, with the creation of the Ecole Polytechnique theory centre, and he served on many committees, including a term as president of the French Physical Society and almost 20 years with various CNRS boards, including the scientific council.

Michel was a member of key international scientific collaborations, and his numerous students in turn went on to fulfil major roles. His understanding of physics and his mastery of mathematics were much in demand for keynote talks at international meetings.

A member of the French Academy of Sciences, Officer of the Legion of Honour and Commander of the Order of Merit, abroad he was a member of the Academy of Catalonia (Spain), was awarded the Wigner Medal, and delivered the Leigh Page Prize lectures at Yale. Louis Michel was a French physicist who played on an international stage.

Raymond Stora.

Correction
The Louis Michel obituary (March p42) should have read: “His corollary work on lepton polarization was soon brought to the fore with the discovery of parity violation in lepton decays. In the same period, he established for strong interaction physics the conservation of isotopic parity (later known as G-parity).” We regret the error.