

Preface by the Editors

More than 20 years after having being written, a manuscript by Edoardo Amaldi comes to the publication. It is about the “adventurous life” of a colleague, Friedrich “Fritz” Georg Houtermans that shared with him a turbulent and dramatic time, starting in the first half of last century. A time, which has undoubtedly influenced the way physics developed, and even more dramatically the private life of men and scientists. Among them, Fritz Houtermans.

Why a manuscript Edoardo Amaldi was working on just before his sudden death in 1989 becomes public more than 20 years later? Indeed, recently some lucky circumstances met that came to a full circle within the Physics Institute of the University of Berne, and more particularly within the Laboratory for High Energy Physics (LHEP) and the Albert Einstein Center for Fundamental Physics (AEC).

Research activities on particle physics started in Berne, and in Switzerland, thanks to Fritz Houtermans, along with his predecessor, Heinrich Greinacher. Houtermans was an essential promoter and protagonist for the development of physics in Berne, with the introduction of a series of activities in the field of elementary particles and important contributions in applied physics. During the Bernese phase, Houtermans was especially devoted to the physics of cosmic rays, using an experimental activity carried out with nuclear emulsion detectors and particle accelerators.

Research with nuclear emulsion detectors and particle accelerators—what a coincidence!—have recently experienced a rebirth in Berne: among some consolidated research activities in physics, a renewed interest on nuclear emulsions characterizes the present time of the LHEP, together with the study of new particle detectors. All this and the recent installation of a cyclotron for medical applications the University Hospital in Berne (Inselspital) have naturally led to a new line of research: the application of particle physics to medicine.

Hence, the circumstances that recently met in Berne are: elementary particle physics, physics applied to medicine, Amaldi’s family. In fact, to promote the new research field in Berne, Ugo Amaldi was invited to give a seminar on Physics and Medicine, namely “Hadrontherapy in the world and its recent developments”.