

HOMAGE TO PROFESSOR RENÉ FREYMANN AND THE HISTORY OF THE GROUPEMENT AMPERE

This Congress AMPERE is not only the XVIIth Congress AMPERE held in Europe. It is also the 20th anniversary of the Groupement AMPERE, and this may be a good moment to look back to the past and to remember the early days of our association.

Indeed the first Colloque AMPERE took place in Paris in February 1952, some twenty years ago. During the second world war France had been occupied by the German army, and French scientists had been isolated, out off from the scientific life which had developed abroad, and at the end of the war, there was a strong feeling for the need to take up scientific relations with other countries.

One of the principal events which helped to promote these relations was the international conference on radiofrequency spectroscopy initiated by Professor Gorter and organized in Amsterdam in 1950. For myself and for many European colleagues this event was a revelation: the revelation of the work of Rabi, of the discoveries of Zavoisky, of Purcell and Felix Bloch, of the existence of microwave spectroscopy of molecules.

We felt a great need to learn more about these new techniques and to initiate work with them in our laboratories. But we were so far behind the development made elsewhere that it was rather discouraging to try to make an original contribution to these new fields of research, this new region of spectroscopy.

We felt very strongly that to succeed we had not to work in isolation, but that we had to help each other, to form a group of mutual information and mutual support. I believe this was the dominant feeling which led to the foundation of the Groupement AMPERE.

The first suggestion to unite the efforts of people working in dispersed conditions came from Professor Rocard. He was since 1945 the head of the Physics Laboratory of the Ecole Normale Supérieure in Paris. He had been an officer in the navy of the French liberation army and had become in this job acquainted with radar and microwave equipment. He started in 1951 the first

appeal to form what he called a "groupement d'information mutuel" which he conceived on a national French base.

His idea was taken up enthusiastically by René Freymann who, at that time, was initiating a research group at the University of Rennes in Bretagne. Freymann organized with Professor Rocard the Paris Colloquium of February 1952. A fortnight before the gathering he sent to a dozen of French workers his circular letter, dated 11th February 1952 where he stated: "We must know each other, we must exchange information between each other, we must help each other".

One of the answers he received a week later came from Dr. Béné from Geneva who proposed to organize periodic meetings and to create a periodic bulletin of information.

The decision to start a permanent association was taken at the Paris Colloquium, and I believe it was René Freymann who coined for it the name "Groupement A.M.P.E.R.E." which means Atomes et Molécules Par Etudes Radio Electriques, associating this aim of the association with the name of Ampère, the pioneer French physicist of the 19th Century in the field of electromagnetism.

The Groupement Ampere developed rapidly, holding a meeting every year and extending outside the borderlines of France to cover the whole Europe. The meetings were organized in 1953 in Grenoble, 1954 and 1955 in Paris and in 1956 for the first time outside France in Geneva. We can appreciate the rates of development by the following facts: at the first Colloque AMPERE 1952 in Paris there were 30 participants, all French, representing 15 laboratories. At the Geneva meeting in 1956 more than 150 physicists were present coming from 8 European countries and also some Americans, among them Prof. Ch. Townes. During this first period of four years, 1952–1956, René Freymann had been the animator of the Groupement Ampere. He had the responsibility of composing and editing the Bulletin, and he managed to roneotype and send out 17 bulletins of information during this period.

So, if Prof. Rocard can be considered as the father of the Groupement Ampere who conceived it – contributing to it with a small but decisive spermatozoide – René Freymann is without any doubt the mother who brought the baby to birth and who insured the development of the child.

This is, I believe a good moment to express our thanks to Professor Freymann and to say some words about the man and his career.

René Freymann was born in Paris in 1909, so his age is 64 at the present time. He received his initiation to scientific research at the old Sorbonne, in the "laboratoire des recherches physiques" directed by Aimé Cotton. The first field of interest of Freymann was infrared spectroscopy, and it was the

pioneer of infrared in France, Dr. Jean Lecomte, who acquainted him with the techniques of infrared spectroscopy. Freymann was specially interested in the modification observed in the spectra when molecules changed from the gaseous state to the condensed state and by the information obtained in this way on intermolecular forces. Freymann sustained his thesis in 1933 and from this date on, continued to work on full-time research as a fellow of the French CNRS which had been created in the 30's. During the second world war Freymann was obliged to leave Paris, as he was of Jewish origin. He found the opportunity to go on with research at the Grenoble University. After the end of the war in 1945 he was nominated "maitre de conférences" (assistant professor) at the University of Rennes in Bretagne. This gave him the opportunity to create and to develop a research team which became, during the eleven years Freymann spent at Rennes, one of the most dynamic research teams in France. Continuing to work on infrared spectroscopy Freymann realised the interest to move to longer wave lengths and to apply hertzian waves to condensed matter. He was able to show that Debye absorption was one of the best methods to investigate lattice defects in solids. In order to extend these investigations to low temperatures, Freymann managed to build up at Rennes a low-temperature equipment extending to helium temperatures, which was one of the first low-temperature apparatuses working in French universities. In 1956 René Freymann was nominated to the Paris University, where he is working and teaching since this time. One of the high lights of his life was certainly the organization of the Colloque Ampère 1957 in the old city of Saint Marlo near Rennes. Many of us remember probably the beautiful time they spent at Saint Malo.

From 1956 on the secretary office of the Groupement Ampere had been taken up in Geneva by Dr. Béné who succeeded in publishing the Bulletin Ampere in the printed form which is now familiar to us. After a new Colloque Ampere organized again in Paris in 1958, the following colloques took place outside France in Europe, asserting the European development of the Groupement Ampere:

In 1959 Dr. Powels organized the meeting in London, in 1960 we were welcomed by Professor Gozzini at the Scuola Normale Superiore in Pisa, in 1961 the Colloque Ampere was organized in Leipzig by Professor Lösche. In 1962 we gathered in Eindhoven in the Netherlands. The organization was made by Dr. Poulis, Professor Casimir welcomed us at the Brabant market. Each of these cities brings up souvenirs in our memory.

In 1963 we joined again in France, in Bordeaux, where we noticed a rather unexpected and remarkable event: the arrival of five Chinese physicists coming right from Peking.

A new period of our Ampere meetings begins with the year 1964 with the decision to organize the meetings every two years only and to specialize the subject.

In 1964 it was Nuclear Magnetic Resonance discussed in Louvain in Belgium, where the meeting was organized by Dr. Van Gerven in the Institute directed by the late Professor Van Itterbeek. In 1966 we were welcomed in Ljubljana by Dr. Blinc, in 1968 the participants met again in France, in Grenoble where the organizer was Dr. Averbuch, and in 1970 we participated in the meeting held in Bucarest organized by Professor Ursu. And in 1972 we were in Turku, Finland.

This is the right moment to express our confidence in the future development of Groupement Ampere and to extend our thanks: to Professor Béné who is our present president and who accepted this charge together with the heavy responsibility of the secretary office, to express our thanks also to the organizers of the present meeting, and especially to Professor Hovi and his coworkers who accepted to do this heavy task, to thank all those who came from near and from far to participate in this meeting, the old veterans and the new and young participants who represent the future of our association. Let me just mention at the end of this foreword that if our association had at its beginning the support of the French Centre National de la Recherche Scientifique and later on the blessing of the Société Française de Physique, it works since 1963 in intimate connection with the International Union of Pure and Applied Physics and constitutes since 1969 one of the parts of the European Physical Society, so it is recognized as one of the active associations for the promotion of physics in the present world.

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