

65 Years Ago: The Birth of the AMPERE Society

Sixtyfive years ago in the fall of the year 1951, the AMPERE Society was born through the initiative of Prof. R. Freymann to form an association of scientists in France engaged in the study of molecules with radio waves following 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“ as Kastler reminisced on the occasion of the 20th anniversary of the society. This mission is preserved in the acronym AMPERE meaning Atomes et Molécules Par Études Radio-Électriques. Only five years later and 60 years ago from this year, the Society had transgressed the territory of France and was incorporated in Switzerland with the founder Prof. Freymann as President and Prof. Georges Béné serving as Secretary General. On account of the complex state of Europe in those days, the aim of the Society was to coordinate electromagnetic physics research in Europe, in particular, to maintain the links between Western and Eastern Europe, and to help scientists in difficult economic or political situations. In these days the Bulletin du Groupement AMPERE was the central communication channel between the different laboratories in Europe forming the AMPERE Society. Interestingly, the British Radiofrequency Spectroscopy Group was also founded in 1956 with Prof. Raymond Andrew being their first president. Along with the European Experimental NMR Conference, these associations, in the early years of this century, merged to form EUROMAR, the annual European Magnetic Resonance Conference under the umbrella of the AMPERE Society.

Until the foundation of EUROMAR, the main event of the Groupement AMPERE was the Colloque AMPERE which later became the Congress AMPERE. The Congress AMPERE was intended to be a forum of discussion of the fundamental theoretical aspects of radio frequency spectroscopy, NMR and EPR and at same time included sections for the application of these theoretical studies to research in condensed matter physics, biology, medicine and instrumentation. Soon the Congress became biannual while the Colloques were devoted to specialized fields and could be held a few times every year, in different parts of western and eastern Europe. The most remarkable meeting probably was the one in September 1961 in Leipzig, just a few weeks after the infamous division of EUROPE on August 13th, 1961 with the establishment of the iron curtain. Even then, science was stronger than politics and the Congress succeeded with many participants from East and West.

This tradition continued in the years of the cold war thereafter, and the Congress AMPERE was the place to meet despite political differences. With time specialized colloquia and schools were organized by member laboratories of the AMPERE society and new Divisions were established. Among the several schools, the Varenna Schools (Italian Physical Society) on lake of Como, organized under the auspices of the Groupement AMPERE in 1986, 1992 and 1998 had a particularly important role and their contents were published in books, which contain, among several monographic subjects, the beautiful introduction to Magnetic Resonance of Alex Pines and the fundamental work of Peter Mansfield on MRI, in which he describes for the first time, the possible ways of reading planar echoes in the k -space. The AMPERE homepage www.ampere-society.org is an informative source on the activities and history of the society.

Prof. Jan Stankowski published a booklet reminiscing the history of the AMPERE Society on the occasion of its 50th anniversary and 31st Congress Ampere in Poznan in 2002. Among others it includes the abstracts of selected lectures presented at AMPERE meetings, for example, N. Bloembergen, Cross-Relaxation Effects in Magnetic Resonance, Pisa 1960; A. Abragam, Polarisation dynamiques des noyaux, Leipzig, 1961; S. A. Al'tshuler, Spin-Photon Interactions in Paramagnetic Ion Crystals, Ljubljana, 1966; E.R. Andrew, Nuclear Magnetic Resonance in Rapidly Rotated Solids, Ljubljana, 1966; E.L. Hahn, Developments in Nuclear Magnetic Double Resonance, Ljubljana, 1966; K. A. Müller, Jahn-Teller Effects in Magnetic Resonance, Ljubljana, 1966; I. Solomon, Magnetic Resonance of Conduction Electrons, Ljubljana, 1966; M. Goldmann, Nuclear Antiferromagnetism, Grenoble, 1967; K.M. Salikhov et al., Modulation phenomena in Electron Spin-Echo, Grenoble, 1968; R. Blinc, Nuclear Double Resonance Studies of Order-Disorder Ferroelectrics, Turku, 1972; A. Lösche, Some NMR investigations of Liquid Crystals, Turku, 1972; J. S. Waugh, M.G. Gibby, S. Kaplan, A. Pines, Proton-Enhanced NMR of Dilute Spins in Solids, Turku, 1972; P.C. Lauterbur et al., Magnetic Resonance Zeugmatography, Nottingham, 1974; P. Mansfield, P.K. Grannell, A.A. Maudsley, Diffraction Microscopy in Solids and Liquids by NMR, Nottingham, 1974. C. P. Slichter, NMR of Dilute Alloys of Magnetic Atoms in Nonmagnetic Hosts, Heidelberg, 1976; R. R. Ernst et al., Application of Two-Dimensional Spectroscopy to Problems of Physical, Chemical and Biological Relevance, Tallin, 1978; A. Pines, NMR with Lots of Protons and no Magnetic Fields, Rome, 1986; H. W. Spiess, 2D and 3D Solid

State NMR of Polymers, Athens, 1992; P.T. Callaghan, Microimaging Studies of Flow and Diffusion, Canterbury, 1996; A. Schweiger, Dances with Electron and Nuclear Spins, Berlin, 1998. Many other milestone lectures remain in the books of abstracts, including the famous lecture by Jean Jeener proposing 2D NMR spectroscopy at the AMPERE Summer School in Basko Polje, 1971.

After the fall of the iron curtain and with the beginning formation of a unified Europe, the AMPERE Society continues to serve its mission in the spirit of its founders, *Se Connaître, S'Entendre, S'Entraider*, i.e. to get to know each other, to listen to each other, to aid one another. It serves as the umbrella organization for numerous magnetic resonance activities in Europe which together form the AMPERE tree, a living organism, which has grown two new branches within the last year, the European School on Biological Solid-State NMR and the Division in Hyperpolarized Magnetic Resonance. The AMPERE Society maintains and expands its services for the whole community engaged in Magnetic Resonance and Related Phenomena in Europe and worldwide. It aims at accommodating new developments in new areas which are progressively opened by the scientific evolution.

Although 65 years of age the AMPERE Society is still going strong. Happy anniversary and many happy returns!

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The AMPERE Society today supports a diverse range of activities from conferences to schools on a manifold of topics in magnetic resonance.