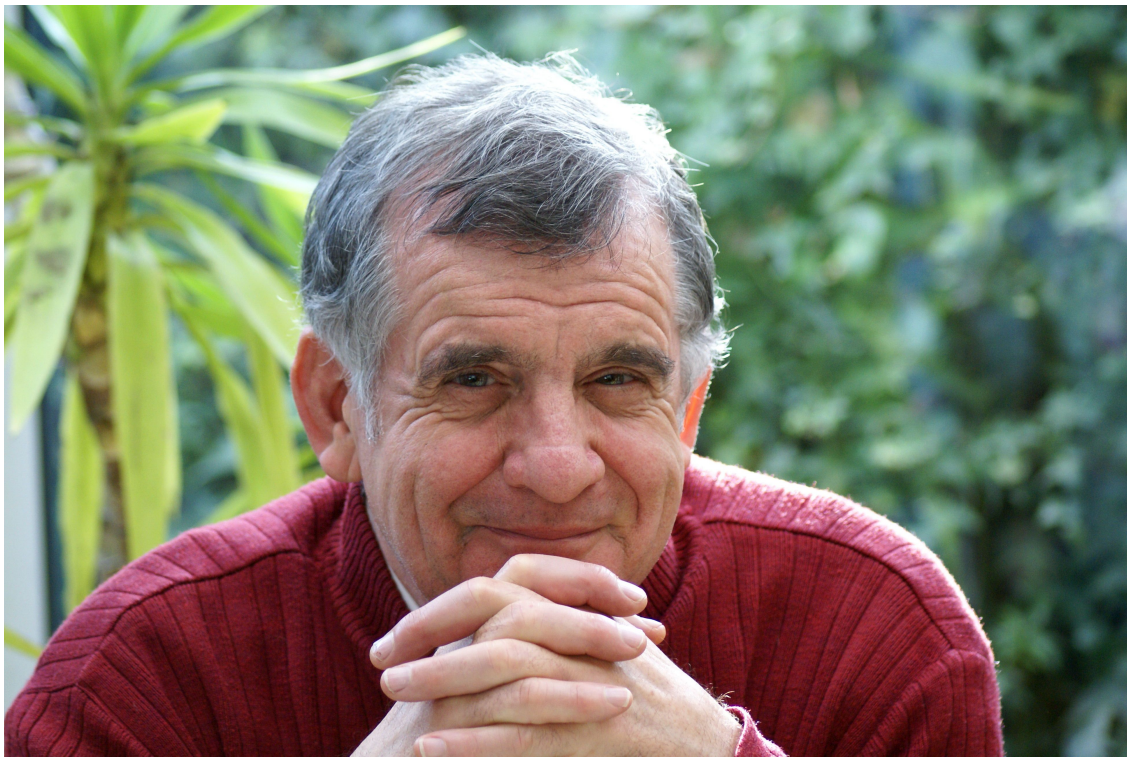
Robert Fleckinger (15.09.1942 - 02.03.2019)



Robert Fleckinger, born 15 September 1942 in Tulle, France, died 2 March 2019 in Paris, was among the founders of the group of theoretical physics at CNRS - Universite Paul Sabatier (UPS), Toulouse, which now became Laboratoire de Physics Theorique (UMR 5152 du CNRS - UPS). He was also the permanent member of Quantware group (www.quantware.ups-tlse.fr).

Robert graduated from Ecole Normale Superieure Cachan (ancien eleve de ENS Cachan) in 1968 getting specialization in physics. He married Jacqueline Pelle in 1965, also eleve-professeur at Universite d'Orsay specialized in mathematics. After graduation (agregation) he spent with Jacqueline 2 years in Tunisia doing teaching physics at Lycee francais de Mutuelleville in Tunis, Jacqueline was giving lectures at University of Tunis. In 1970 he became assistant professor (maitre de conference, MC) at UPS in the Laboratoire de Physique Quantique (now UMR 5626 du CNRS) created by Philippe Durand in 1969. Jacqueline became MC in mathematics at Institut

National Polytechnique of Toulouse

In a first time I saw the name of Robert Fleckinger among authors of preprint on quantum chaos in kicked rotator (later published as Ref.2) which I received around 1986 at the group of Boris Chirikov in the Institute of Nuclear Physics, Novosibirsk, Russia. In fact from that times Robert collaborated with Jean Bellisard who was professor at Universite de Provence, Marseille. In the fall of 1991 Jean Bellisard was creating the group of theoretical physics initiated by French scientific authorities and this contact played an important role attracting Jean Bellisard to Toulouse. Thus from October 1991 the theory group became an independent component of the Laboratoire de Physique Quantique (URA 5626 du CNRS) directed by Jean-Pierre Daudey. At that times the members of the group were: Jean Bellisard (group leader, professor UPS moved to Toulouse from Marseille), Robert Fleckinger (MC UPS, already on place), Yves Soulet (professor UPS, already on place), Jean Dolbeault (CR CNRS coming from Paris), Clement Sire (CR CNRS coming from Marseille), Armelle Barelli (PhD student with J.Bellisard) and me as visiting CNRS researcher for one year coming from Novosibirsk.

Robert was extremely kind person always ready to help others. Thus he played the fundamental role in the life of theory group which was growing with time attracting new members and getting high scientific recognition world wide. Robert became UPS professor around 1995 but he always remained a modest person, very devoted to education of students. His attachment to students is well clear from the book for students with 776 pages (Ref.4). The high human qualities of Robert allowed to smooth several perturbations related to the group growth leading to its transformation into the independent Laboratoire de Physique Theorique (UMR 5152 du CNRS) which we have now. In fact this official administrative name has been attributed to the Lab in 2003 already after the departure of Jean Bellisard in 2001.

The scientific interests of Robert were rather broad changing from statistical mechanics, electromagnetism, classical and quantum chaos, electron spectrum in a magnetic field and quantum computers (see Selected Publications below).

Let me give a few personal examples of situations where the help of Robert was very important. In October 1991 with my wife and two small children we were desperately waiting the French visa in Moscow staying in a small flat of our friends who had the family of the same size. For some reasons the operability of French administration in Paris was not at its highest level. Thus only a direct intervention of Robert helped to accelerate this process so that we finally got the visa and arrived to France at the beginning of October 1991. I do not know how but Robert was always able to speak with administrative representatives in such a way that they were becoming really aimable, pleasant and efficient in realization of their related tasks.

Another example is related to the creation of the Quantware web site where now is located this article. In 1999 I started to work on quantum computers and in analogy with the world known terminology of software, hardware proposed to use the word quantware for the web site of UPS to present our group work results on quantum computing and related areas. This new word was rather unusual for UPS administration but Robert convinced them and the Quantware group with the web page www.quantware.ups-tlse.fr had been created in 2001 with the permanent LPT members being me, Robert, Klaus Frahm and Bertrand Georgeot (Klaus and Bertrand arrived to the theory group in 1996). Let me note that at present the web site checkpagerank.net gives this web site the scores 5/10 (Google PageRank), 5.1/10 (cPR Score) with the Global Rank 43356 and Alexa Reach Rank 37945 that are well comparable with those of the whole UPS web page http://www.univ-tlse3.fr/ (with the respective numbers 5/10, 5.3/10, 34112, 38502 in the same order).

During many years, from 2002 to 2014, the Quantware group had a traditional Marche Quantware going in June-July along the Canal du Midi at which Robert was also participating with a few photos shown below from 2006 and 2009.

Robert retired in 2007 but he remained emeritus professor still for a couple of years. And even when this status has finished Robert was often coming to the Lab and seminars. In this period he still was helping to various Quantware initiatives like launching in 2014 of Ecole des sciences avancees de Luchon www.quantware.ups-tlse.fr/ecoledeluchon/ (see photo) for which he participated in several trips to Luchon and organization discussions with representatives of Mairie de Luchon.

And of course, as a real French, Robert had many diverse interestes in his life which description would take many many pages.

In his last year Robert fighted with a severe oncologic disease. Our last discussion at LPT was on 2 November 2018 and phone talk on 25 February. Robert passed away on 2 March 2019 in Paris. I was impressed by the number of friends who came on his memorial rencontre organized on 16 March 2019 by Jacqueline in Toulouse. Robert left after him his wife Jacqueline Fleckinger, who provided the top photo of Robert (she is emeritus professor of mathematics at Universite de Toulouse I), their daughter Sylvie and three granddaughters.

I will always keep memories about my kind friend Robert Fleckinger.

Dima Shepelyansky (Toulouse, April 10, 2019)

Selected Publications of Robert Fleckinger:

- Ref.1 R.Fleckinger, A.Gomes and Y.Soulet, "Statistical mechanics of composite particles: I. General formulation using a projection technique for the fixed ion plasma model" Physica A v.85(3), p.485 (1976)
- Ref.2 M.Samuelides, R.Fleckinger, L.Touzillier and J.Bellisard, "Instabilities of the quantum rotator and transition in the quasi-energy Spectrum", Europhys. Lett. v.1(5), p.203 (1986)
- Ref.3 A.Barelli and R.Fleckinger, "Semiclassical analysis of Harper-like models", Phys. Rev. B v.46, p.11559 (1992)
- Ref.4 J.-P.Perez, R.Carles and R.Fleckinger, "Electromagnetisme: fondements et applications avec 300 exercices et problemes resolus", Masson, Paris (1997) [book of 776 pages]
- Ref.5 K.M. Frahm, R.Fleckinger and D.L.Shepelyansky, "Quantum chaos and random matrix theory for fidelity decay in quantum computations with static imperfections", European Phys. J. D - At. Mol. Opt. Plasma Phys. v.29(1), p.139 (2004)