

Raymond Félix Stora



18 September, 1930 – 20 July, 2015

I first met **Raymond** at *Les Houches*, back in 1970. Together with Cécile De Witt-Morette he was the director of a famous School on Quantum Field theory and Statistical Mechanics. I was admitted to that school, because I had just become a PhD student of Klaus Hepp, who lectured about perturbative renormalization theory (BPHZ and axioms for renormalization). I was a very shy young man. But Raymond created a very pleasantly informal atmosphere, and I immediately liked him. Incidentally, Gerard 'tHooft was not admitted to that school, which – I suppose – saved him from becoming a mathematical physicist. But Alain Connes and Barry Simon were students, too. They competed with one another about who was faster in simplifying the proofs of the lecturer.

Raymond and I shared quite a few likings, including tobacco and alcohol, history and art, quantum field theory, etc. But among our deepest likings was our love for Les Houches and for Cargèse!

I actually preferred Les Houches over Cargèse and, I guess, so did Raymond. He looked and acted a little

like a “montagnard”, although he was actually a “Pied-noir”, a member of the human species you may have encountered in the writings of Albert Camus. Not only did he intimately know and love North Africa and France; he had traveled the world as a young man. He got his PhD from MIT, where he worked under the supervision of Vicky Weisskopf. Raymond was a highly cultured man.

Raymond and I had a long-lasting, kind and – I would say – graceful interest in each other, in our thoughts and ideas, in spite of the fact that we never quite managed to understand each other. Raymond supported and promoted me whenever he could. Scientifically, we shared an interest in whatever is related to quantum field theory, such as anomalies, and Raymond even understood what they are, but never succeeded completely in conveying his understanding to me. In recent times, we shared a serious interest in the deeper meaning of quantum theory. Alas, my hectic life as a retired professor unfortunately prevented me from discussing

quantum mechanics with him, and I very much regret that.

Although our scientific styles and interests have never been very close, Raymond and I always appreciated the usefulness of mathematics in theoretical physics. Undoubtedly **he** made excellent use of sophisticated mathematics in his work with Carlo Becchi, Alain Rouet and others. We enjoyed the company of mathematicians. At Les Houches, in 1970, the late George Mackey and Raoul Bott were among the students. Besides the late Ken Wilson and Bruno Zumino, Gerard 'tHooft, and many other famous theorists, Atiyah and Bott were lecturers at one of the Cargèse schools, which featured the physics and mathematics of gauge fields.

In a not entirely successful attempt to finally learn how BRS works, I invited both Carlo and Raymond to lecture about gauge theories and BRS at ETH. They came during two different periods, the hope being that, after the second series of talks, we would finally adequately understand things. Well, this hope did not materialize completely. Nevertheless, both series of

lectures were highlights of the program I helped organizing in Zurich, during thirty years.

After his lecture, Raymond would usually come to our humble home for dinner. He always brought an art book as a present. While I fear I have forgotten much of what he was teaching us, I will never forget the wonderful evenings with him.

Raymond was a bibliomaniac. I suppose he must have gathered an impressive collection of precious books. I have never seen his collection of pre- and reprints and books. But I imagine that, in this respect, he could compete with the late Jean Lascoux, another Pied-noir.

Around this time of the year, Raymond and I would always exchange New Year's greetings with short summaries of what had happened during the past year and offering best wishes to each other. (We followed the Gregorian calendar.) I admired his beautiful calligraphy, although it always took me considerable efforts and time to decipher his letters. We would usually promise to each other to increase the rate by which we would visit each other. Alas, we

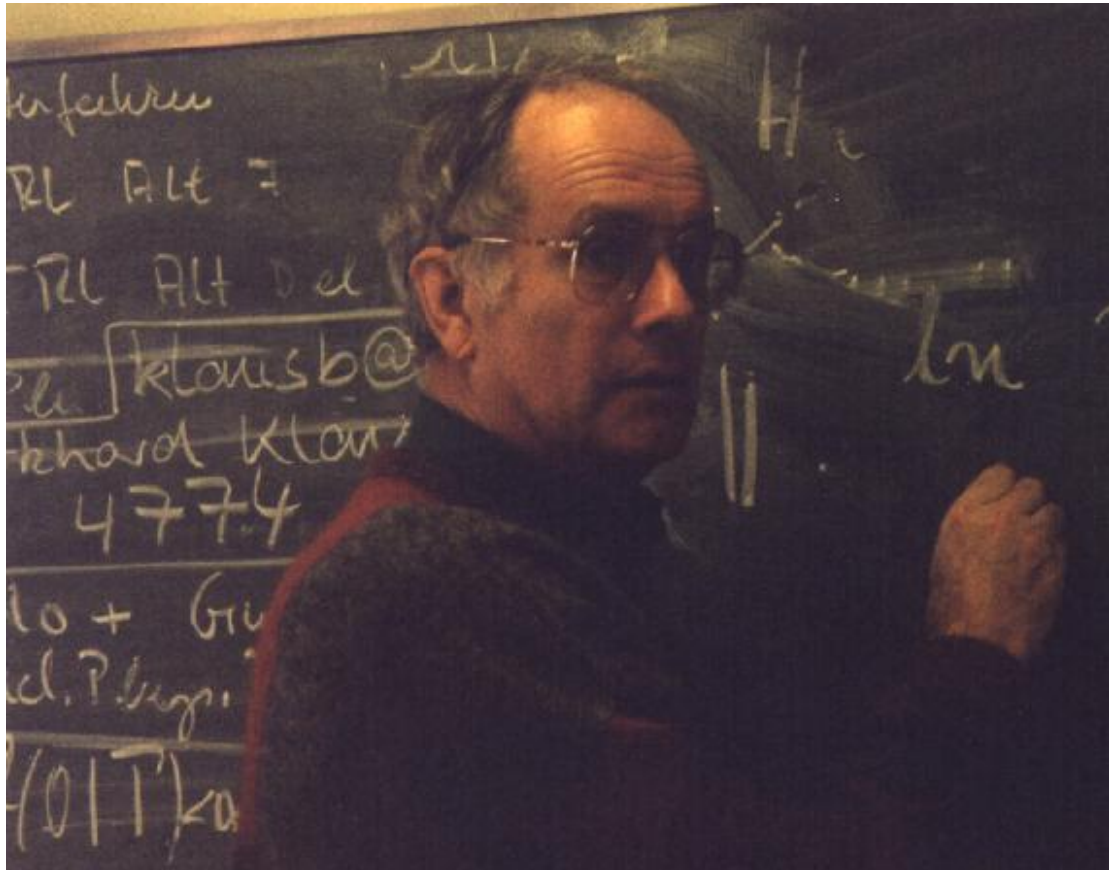
never quite kept our promise. Then, in 2007, when we invited Raymond to lecture at a meeting at ETH he told us that his health condition prevented him from traveling. I was worried. But, some time later, I met him again in Paris and hoped that the situation was stable again. Raymond was very discrete. There were several tragedies in his life. But he usually never talked about such very personal things. Only on rare occasions he would share feelings.

I gladly remember the celebrations of his eightieth birthday at Annecy. Although it was obvious that he was not in good health anymore, he very much enjoyed seeing all his friends, talking, asking questions, smoking cigarettes, drinking wine – well, in two words: **enjoying life!**

With David Ruelle, Jean Zinn-Justin and the late Louis Michel, Raymond Stora was my closest friend among my French colleagues. My wife Eva and I will greatly miss him!

Thank you!

Permit me to add that another great friend and excellent colleague, **Robert Schrader** just died, a few days ago.



May both friends rest in peace!