

Best Feelings to True Friend

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I always felt that mon Cher Ami, Guy Fayolle, is devoted to science and to his scientific colleagues. And I always believed that this human feature is not less important than any other activity in science.

Moreover, any field of mathematics is being developed by individual and common efforts. This includes – ideas, discussions, conferences, papers, books. Also organizational activity. As an example of the latter I want to mention Russian-French center of applied mathematics in Moscow State University in early nineties, which would not exist without Guy’s activity. He was also eager to organize contacts with many mathematicians from all parts of the world. And finally, fabulous scientific freedom and human environment inside his project at INRIA always attracted many visitors. Personally, I am very grateful to Guy for introducing me to the atmosphere of benevolence, hard work and intoxicating freedom in France, at INRIA. This journal, MPRF, also would not appear without personal activity of Guy Fayolle.

Influence of Guy in the following fields of mathematics cannot be overestimated. I mention only those where I participated:

1. Analytic methods for random walks in quarter plane. Although I started this adventure earlier in Moscow, this would hardly survive without the interference of Guy and Rudolf Iasnogorodski. With them we discussed relations between such fields of mathematics as complex analysis, Wiener–Hopf equations, Galois theory etc. Due to this the book “Random Walks in the Quarter Plane. Algebraic Methods, Boundary Value Problems, Applications to Queuing Systems and Analytic Combinatorics” finally appeared. I regret only that there was no enough time to work with Guy on functional equations techniques in the many particle problems of quantum physics. But I hope this could occur and our collaboration with Guy will continue in the new journal “Structure of Mathematical Physics”.

2. Probability methods (Lyapounov functions, dynamical systems) for random walks in infinite domains of various dimensions. Second book “Topics in the Constructive Theory of Countable Markov Chains” also appeared due to our collaboration inside Guy’s project and Moscow State University.

3. Structure of queuing and communication networks.

Here I would like to say some words about evolution of mathematical sciences. In general, we see mathematics as a community of people, joined by a special language – mathematical language. And one could think that there should exist a kind of sympathy, of mutual understanding, between the adepts of such language. And that mathematical community should be overfull with such support and help. But, as we discussed with Guy, mathematics in XXI century is even much wider field of science if compared to the number of mathematicians (digging, even if deep, local holes). The distances between diggers become so big that there is danger that relations between different fields of mathematics could be lost, and the main goals will be prizes, ratings, impact factors etc. The ugliest thing I ever saw are referee reports like this: “your paper is too low level to be published in our high level journal”. With Guy in our journal MPRF we always wanted to avoid such kind of reports. That is why I always thought that benevolence and the desire to understand other fields of science is often more important than very complicated results in narrow fields.

Finally, I wish Guy many years of creative life.