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A FEW RECOLLECTIONS

Vladimir Nikolaevich Sudakov and I met for the first time at a conference on "Measure Theory" in Germany from June 26 to July 2, 1983.[1] I am not sure that we talked a lot at that occasion, even though I remember a natural shy curiosity on my side.

Actually, we had more common mathematical interests than either of us was aware of. If I had seen his article [7] on a continuous version of the Birkhoff–von Neumann theorem [1] on the representation of doubly stochastic matrices by permutation matrices, I would have stopped my (unsuccessful) efforts to do something similar. (My knowledge of the Russian language unfortunately is poor but it was sufficient to read with a dictionary most mathematical texts). On the other hand my joint work with Dan Mauldin and David Preiss [3] on different types of orthogonality in transition kernels was closely related to the classical study of Rokhlin [5] and the subsequent work of Romanovsky and Sudakov [6] on independent partitions. It also would have been possible to discuss the meaning of the word 'disjoint' in the title of [7]. In any case, we slowly and gladly discovered a certain similarity of mathematical taste.

The contact increased after the political changes around 1990. In 1991/92 Nina Maslova was invited by my colleagues at the Kaiserslautern mathematical department as the first Sofia Kowalewskaja guest professor. Partially on her initiative I then spent a month in St. Peterburg. My wife and I remember with great gratitude the hospitality and the lively discussions during that visit. I stayed for several weeks at the home of the Sudakov family. During this time he showed me his observation [8] on typical marginal distributions and I could rephrase the phenomenon as a 'conditional central limit theorem' in the paper [9].

In the subsequent years we had the chance to participate in a cooperation in probability between St. Peterburg and several German universities

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[1]In the digital archive [4] of the Oberwolfach Institute one can find handwritten summaries of the talks.

and Mr. and Mrs. Sudakov visited Kaiserslautern a few times. Our friendship grew. On the mathematical side I just would like to mention a small example of his influence. On one the last visits I told him about my interest in a converse to Kómlós' subsequence theorem, the latter stating that every sequence (X_n) of random variables which is bounded in $\mathcal{L}^1$ has a subsequence (X_{n_k}) whose averages

$$\overline{X}_{n_k} = \frac{1}{k} \sum_{i=1}^{k} X_{n_i}$$

converge a.s.. He immediately asked the following nice question (cf. Remark 1 in [10]): Can one replace boundedness in $\mathcal{L}^1$ by the condition that the $\overline{X}_n$ converge in probability? The answer turned out to be negative, as any i.i.d. sequence shows which satisfies the weak but not the strong law of large numbers. Such sequences exist, see e.g. sections 7.7 and 7.8 of [2]: Take a symmetric distribution without first moment whose distribution function F satisfies $F(x)x \to 0$ as $x \to \infty$.

We shared an interest in the history of our countries. He combined a natural kindness with a critical intuition. I will not forget the friendly expression on his face when he and his son Andrei brought me to the airport after his 80th birthday. It was as fresh as ever. Have a look at the foto in this volume.

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