

Preface to Special session on QCD dedicated to V. Gribov's confinement scenario

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V.N. Gribov would have been 85 years old in 2015. There were many events on this occasion, among others a Gribov-85 Memorial Workshop at the Landau Institute. Physicists from different parts of Russia and the world came to Chernogolovka, and those who could not come sent their contributions to the proceedings to pay tribute to a great physicist who was one of the creators of theoretical high energy physics. (The proceedings: Gribov-85 Memorial Volume, Exploring Quantum Field Theory is already published at World Scientific.)

On his 85th birthday a seminar was organized at the St. Petersburg Nuclear Physics Institute in Gatchina, where he was the leader of the Theory Department for many years. It was a quite unexpected event, and, as it turned out when I already arrived there, all the talks were just about remembering Volodya. I am his wife, so for me emotionally it was not so easy. On the other hand, it is very important that his memory, his ideas and works are kept alive.

My son told me a couple of years ago that everybody can be characterized by one word, if you want to underline the most important quality. I asked him what he would say about Volodya. The answer was: a good human being.

I remember a sentence Gribov told me long-long ago: "life is a chain of accidents". And, indeed: in 1958 I was admitted to the physical faculty of the university in Budapest. After that, I saw in a newspaper that there is a possibility to study abroad - at that time that meant the Soviet Union or Eastern Germany. I decided to try to go to the Soviet Union. I got the permission, and landed at the Leningrad University. From the fourth year at the university students from foreign countries (there were just a few) got the possibility to participate at seminars of the Theory Department in Gatchina, so I went there once a week. It was very interesting, I learned there a lot. And I saw there a young man, who, listening to the talks, many times jumped to the blackboard, and explained, what is so, what not, and why - I had the feeling that I would never dare to say anything in front of him. The man was V. Gribov, the leader of the Theory Department.

After finishing the university, I began to work at the Central Research Institute for Physics in Budapest - it is still my working place. In July 1977 an EPS conference was organized in Budapest, and we could invite Gribov - for quite a long time he was not allowed to travel abroad. And when we met in Budapest, it became immediately clear that we have to be together.

We got married in 1980, and I occurred in a fantastic new world of physics. I remember all moments of our life. The pleasure when I was cooking something in the kitchen, and Volodya was standing behind me, telling in details what he is thinking about, what problem he tries to solve. For him there existed just one world, and any new question to what he got an answer had to fit in this picture.

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I will never forget the incredible feeling when I looked at Volodya, who lay many hours on his couch with eyes closed. He did not sleep, and one could see he was thinking.

By the way, explaining something, he was always smoking. I was, of course, a bit worried, but I understood that he is used to it, and without smoking it is difficult for him to concentrate on his work.

Volodya told me the story how and when he began to smoke. He was born and grew up in Leningrad (now St. Petersburg). When the city was blockaded by the German army in WWII, he and his mother were evacuated to Siberia. Their life was not in a direct danger, but they had very little to eat. Children rolled up dry leaves to smoke and assuage their hunger. This must have been around 1942, when Volodya was 12 years old.

To return to physics: it was an extraordinary experience intellectually and emotionally to see, how Volodya was working on different subjects, and how he was always thinking. Long ago he found a consistent description of high energy hadron interaction (Gribov reggeon field theory). He predicted the existence of the Higgs-boson, and, together with Pontecorvo, the neutrino oscillations. What a pity that he could not see their discovery.

I am glad that the 5th International Conference on New Frontiers in Physics includes a Gribov session. Today the day begins with Gribov's theory of confinement, which he finished almost 19 years ago, in the hospital, before he died. It was published later with the help of Yu. Dokshitzer. (Also books in which his lectures on Quantum Electrodynamics, The Theory of Complex Angular Momenta, and Strong Interactions of Hadrons at High Energies are collected.)

Volodya had the habit not to publish his results immediately, he was checking again and again his calculations and the conclusions he came to. So he left many almost ready papers, and very precise calculations (sometimes more than 100 pages). With my colleagues we collected them, brought them to the institute. We are still in the process of scanning the papers, and our director, Peter Levai, has the plan to put them on a special Gribov website. And you can always find these papers in Budapest.