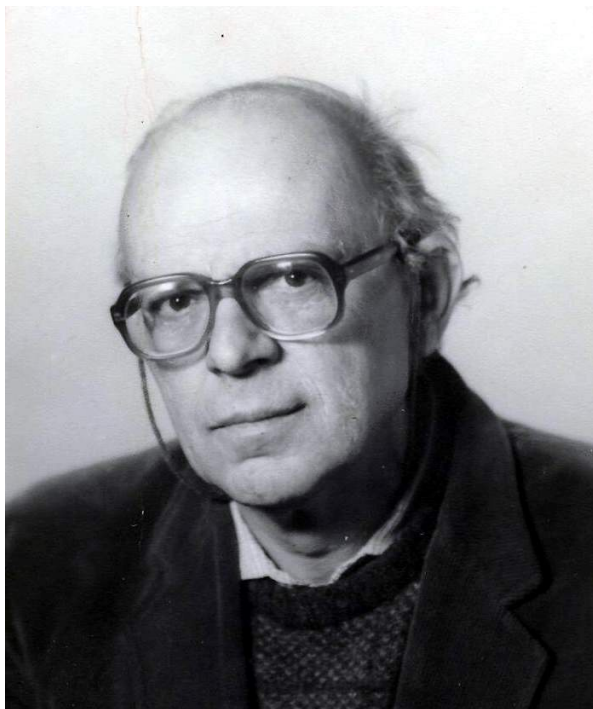


IN MEMORY OF



Professor Dr. Sci. PETER PETROV RAYCHEV
1938-2004

Some Personal Reminiscences on a Great Man

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In June 1990 the 10th Rila Workshop on Nuclear Theory started on a *Tuesday* morning! The Workshop had been scheduled well ahead of time, but later on, the first general elections in Bulgaria after the political changes in eastern Europe at that time had been arranged for the weekend before it, on Sunday, June 10. In order to vote, people had to go to the places where they were registered in the distant past. Thus the gathering in front of the Pliska Hotel was moved from

Sunday afternoon to Monday afternoon, for Bulgarian participants to have time to come back to Sofia. Peter had to come back from Plovdiv, where he was born on May 20, 1938. A few weeks later the Parliament which resulted from this election selected Peter's close friend, Zhelyu Zhelev, a dissident professor of philosophy from Sofia University, as Bulgaria's first president (1990-1997) after the political changes.

In addition to lively political discussions, the atmosphere in the small hotel of "St. Kliment Ohridski" University of Sofia, where the Workshop was taking place at that time, was also heated by football arguments, since the FIFA World Cup had just started. The morning scientific sessions were followed by football plus spirits late afternoon sessions in the very same lecture room, where a small TV set was available. It was in that room, in the break between the Belgium vs. South Korea (2-0) and The Netherlands vs. Egypt (1-1) games of the first day of the workshop, that Peter and his life-long close collaborator Roussy Roussev (1946-2000) introduced me to the then emerging world of quantum groups, introduced by the then Leningrad school and made known to them during the visit of the prominent Soviet mathematical and nuclear physicist Yurii Fedorovich Smirnov (1935-2008) of Moscow State University to Sofia during the Christmas vacation of 1989 [1]. The avalanche of papers which followed, starting with [2, 3], can be located in the relevant archives and review articles [4, 5]. What cannot be seen there is the genuine enthusiasm which made the lecture room vibrate that evening, caused by the realization that wide roads and intriguing paths were being opened before us.

What I have described above, was my first visit to Bulgaria and to the Rila Workshop. A long series of exciting and fruitful Rila Workshops followed, during which I was at all times carrying with me a piece of paper and a pen, since it was completely unpredictable under which circumstances Peter's next bright idea was going to strike. It could occur while walking through the forest uphill to the Malyovitsa complex, or while drinking coffee and discussing heated political issues, or while working on a bottle of home-produced rakia of 80% ABV in a nearby obscure place reached on a pre-war mountain military vehicle. Nikolay Minkov and Dimitris Lenis, early initiated in these rites as graduate students, can offer testimonies to my statements.

The 22nd Rila Workshop in June 2003 was the last one in which Peter's body was present, in contrast to his lightning spirit, which still is and will always be around. At that time the state of the art of critical point symmetries and shape phase transitions in atomic nuclei was discussed, brought to us by Rick Casten of Yale University, who had braved the bad weather in Istanbul at Christmas 2002 in order to meet the SEENeT (South East European Nuclear Physics Network) people in Baltalimani on the Bosphorus and discuss with them possibilities of common efforts, despite making the remark "If I see people from Bulgaria, Greece, Romania, and Turkey working together, I will be greatly surprised!". Peter's ideas were instrumental in getting us started [6, 7] along this path, which we still follow, as one can see in the relevant archives and review

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articles [8]. His last paper was submitted a couple of weeks before his passing away [9]. In what followed, Rick Casten was happy to see physicists from the Balkan countries working together and coauthoring papers even with him, a typical example being [10].

Peter was a deeply “political animal”, in the sense of Aristotle. My personal conclusion, after many endless discussions with him, was that being a dissident is hardly related to the particular regime one is against. Peter was a genuine freedom fighter, a fighter trying to free people from dishonesty and stupidity, which lead to oppression and suffering.

Over the years Peter has also been distinguished by his notorious jokes. Listening to them being recited around the evening fire on which freshly-cut mushrooms were roasted within lots of butter, the bottles around greatly outnumbering the people present, always was a unique experience for the few lucky, chosen ones. The “top secret” is an example of self-criticism:

An American, a Soviet, a Chinese and a Bulgarian physicist discuss what “top secret” means in their own countries.

— *In the U.S., we have a research center in California, and another research center in Illinois. The two centers work on the same thing, but each of them does not know what the other center is doing. This is “top secret” for us.*

— *This is not quite enough. In Moscow, we have a research center on the left bank of the Moskva river and another research center on the right bank. The two centers work on the same thing, but each of them does not know what the other center is doing. This is “top secret” for us.*

— *This is still ridiculous. In downtown Beijing, we have a high-rise building. We have a research center on the 5th floor and another research center on the 11th floor. The two centers work on the same thing, but each of them does not know what the other center is doing. This is “top secret” for us.*

— *Well, in the outskirts of Sofia we have this Institute for Nuclear Research and Nuclear Energy. Here is a man, sitting in his office, filling pages after pages, and not even he himself knows what he is doing. This is “top secret” for us!*

At this moment I feel that my words are too poor to describe Peter’s mental and moral stature. I will therefore give the floor to somebody far better qualified, the great Greek poet of Alexandria, Egypt, C.P. Cavafy (1863-1933), as translated by Preveza-born Rae Dalvin (1904-1992) [11]:

BUT WISE MEN PERCEIVE APPROACHING THINGS

For the gods perceive future events,
men what is happening now,
but wise men approaching things.

(Philostratus, Life of Apollonius of Tyana, viii, 7)

*People know what is happening now.
The gods know things of the future,
the entire and sole possessors of all the lights.
Of the things of the future, wise men perceive
approaching events. At times*

*during hours of serious meditations
their hearing is disturbed. The mysterious clamor
of approaching events reaches them.
And they listen with reverence. Although outside
on the street, the peoples hear nothing at all.*

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