

Quiery: What is this?



Optional hint: Very brief history of time (invoking the past, 1964-2024)

Second hint: Marcel Proust, "À la recherche du temps perdu"

"And suddenly the memory revealed itself. The taste was that of the little piece of Madeleine" (remember about tea!)





## Very brief history of Time 1964-2024

",Sixty years have passed like one day")



16 May 2024; Piotr Garbaczewski



In search for winter, snow and science



2010

Prehistory: **1969-1974** 

**Feb. 1969** The Kindergarten of Theoretical Physics,



(its Godfather in 1966 was Bernard Jancewicz)



**31 May 1974** PhD day for B. Jancewicz and P. Garbaczewski 50th anniversary on 31 May 2024



**First half of June 1975** "Samotnia" shelter home; Wrocław-Karlsruhe Summer School for Young Scientists, with H. Nicolai and M. Sohnius in the audience









The 60th anniversary celebration of Karpacz Winter Schools has been scheduled for the second half of May 2024, when Spring is in full swing and summer glimpses often happen. And basically (presently at least, climate changes follow) **there** is **no winter, nor snow around,** except for the top of Sniezka mountain (1604 m).

That appeals to personal memories of the fairly distant past. My first encounter with the School, in February 1969, happened during the third year of physics studies in Wroclaw. The reason was the Kindergarten of Theoretical Physics, organised with great commitment by Bernard Jancewicz. We had young Warsaw physics students in the company – J. Mostowski and K. Wódkiewicz, pushing us to inferiority complex- they had legendary courses of modern analysis given by K. Maurin, and we did not. Kindergarten participants could follow great lectures on gravitation by M. Demianski. Clearly, skiing and the night bridge competitions (not forgetting about wine) have been compulsory elements of students' life. This was the first time I had ski on my legs.







In reference to the present May 2024 anniversary, I have special early summer memories. In the first half of June 1975, on professor Jan Łopuszanski order, I have organized an ephemeral Wrocław-Karslruhe School for Young Scientists in "Samotnia" shelter home in the heart of Karkonosze mountains (with revisit in Fulpmes, Austria in April 1976). With some hard efforts (politics!), in the last moment, 7 days before the scheduled beginning, we have secured Polish visas for six bright students of the Julius Wess group. Among them we had Martin Sohnius and Hermann Nicolai. Victor N. Popov (that of Faddeev-Popov ghosts) gave us special invited lecturs on path integration methods in gauge theories. He was an exquisite chess player, and a great surprise (completely accidental, but not without some imagination) has happened, I was once a winner. Together with professor Jan Rzewuski as our outdoor leader, we had an opportunity to run "chocolate slaloms" (skiing on the late spring snow, in the full sun, with possible stops and downfalls in the chocolate-colored mud) in the cirqe of the Little Pond, well above "Samotnia". A part of this memory is that Martin Sohnius has been in the process of an intense collaboration with Rudolf Haag and Jan Łopuszanski, whose outcome was the H-Ł-S theorem (see Wiki) on central suppersymetric charges.

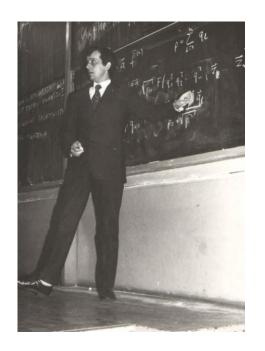


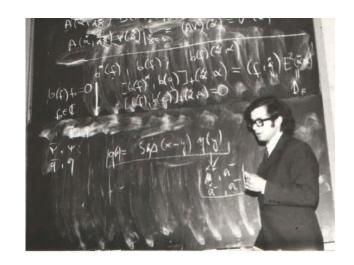


Jan Rzewuski, excelent skier, our outdoor downhill skiing guru

Jan Łopuszański, lover of walks in fresh winter snow

31 May 1974, B. Jancewicz and P. Garbaczewski







Completing (cello player) the trio of classical music lovers

Coming back to Winter Schools proper, an attendance in many of them was a natural obligation combined with pleasure, for most of scientific employees in the Institute of Thoretical Physics of Wrocław University, younger and senior ones.

To give a glimpse of the Schools meaning to us (in Wrocław) and the growing reputation of Winter Schools in the theoretical physics community in Poland and abroad, let me focus on the year 1978, 15th School (organized by W. Karwowski) on "Mathematical aspects of quantum field theory". Who was among the lecturers ?... J. Łopuszański, H. Borchers, J. Klauder, J. Fröhlich, K. Osterwalder, G. Jona-Lasinio, A. Barut, K. Pohlmeyer, D. Buchholz. On the group photo you can find future ITP professors: me, K. Redlich, Z. Popowicz, Z. Haba.





1991 group photo





1989 group photo







1973 group photo







Anecdote: **origins of the 38th School poster.** The
beginning was A. Pękalski
36 th Winter School event
in Ladek Zdrój, Feb. 2000
and its aftermath on 1619 March 2000



In the coming years, I had my own part in the history of Winter Schools, as the director, co-director, co-organizer and the lecture volumes editor of five of them. They refelect my personal (and in part these of the co-organizers) scientific interests and their evolution from about 1991 to 2015. In my case, under the personal badge "Nonlinear dynamics, Stochastics, Chaos",

I am particularly fond of the 1995 and 2002 schools, whose proceedings have been published in the Springer Lecture Notes in Physics series. These volumes, in addition to hard-cover originals, have received the paperback editions, respectively in 2013 and 2010, and additionally are available on-line.

Excerpts of external opinions about these exemplary volumes are worth citing.

Concerning the 1995 School, R. Blümel (Freiburg) has written: "In my opinion the book is essential reading for anyone who wants to become or stay up to date in the modern developments of chaos and quantum chaology". The 2002 School has received the Springer-Verlag recommendation: "The value of this volume is that it helps to give students and other researchers a view of the big picture in non-equilibrium statistical physics".



Schools directors and Volume editors, have not been working in a void. Never forget about all colleagues of various generations, who took part in organisational efforts, but sometimes were left unnamed. I thank heartily to all my ITP collaborators, without whom the continual Winter School tradition would be hard to maintain. Even without any trace of snow around ...