

PALS 10th anniversary workshop
address by M. Glogarova representative of the Institute of Physics
23 September 2010, PALS - IPP , Prague 8

Ladies and Gentlemen, let me shortly resume at this occasion the relations of the Institute of Physics of the Academy of Sciences of the Czech Republic to PALS and to its history.

Investigations of gas lasers have a long tradition in the Institute of Physics. They started at the beginning of the eighties (of the past century) when the department of Discharges in gases, later renamed as Department of gas lasers, acquired a pulsed iodine laser developed in the Institute of Physics in Moscow. The originally Russian laser, named Perun in our Institute, was reconstructed at first, and later on (in the year 1992) an updated version with the 100 GW peak power laser beam was put into operation.

Under the leadership of Karel Rohlena during the nineties the department gradually gained prestige in the European gas laser research. International conferences have been organized here especially in collaboration with the Max Plank Institute for Quantum Optics in Garching, where in 1991 the powerful terawatt iodine laser system Asterix IV was accomplished

Run after the Nobel price in laser physics resulted in the decision to finish after about 6 years the research on the Asterix in Garching. The infrastructure itself became a subject of interest of institutions from several not only European countries. The experience with Perun iodine laser and the international prestige of Czech high power physics were the reasons why finally Prague won the competition to get the right to dismantle the Asterix and to try to reassemble it under a new name PALS, though, at that time, the Czech Republic was neither NATO or EU member.

I want to stress the personal contribution and the highly positive role played by Vladimír Dvořák - that time director of the Institute of Physics. It was him, who had to decide, whether to accept the offer from Garching or not, knowing well that the reinstallation of Asterix and its subsequent operation would be a great bite for the Institute of Physics alone. A great help represented the new form of collaboration with the Institute of Plasma Physics. Vladimír Dvořák and Pavel Šunka as directors agreed to form and operate a joint Laser-plasma Research Center, which proved to be very successful. Expertise of scientists from the Institute

of Plasma Physics on high power particle beams brought strong positive synergy to the knowledge of powerful gas lasers of scientists from our institute. Unfortunately, Vladimír Dvořák cannot share with us his personal memories from that time. He passed away 3 years ago.

The acceptance of Asterix apparently exceeded possibilities even of both institutes involved. It was necessary to arrange many official matters especially to get funding for the construction of a special building. In this respect it is necessary to appreciate credit of Karel Jungwirth, the vice president of the Czech Academy of Sciences at that time, who negotiated these things on the Academy, parliament or government levels. Later on Karel Jungwirth became director of the whole Institute of Physics, but he still managed to get extra financial support from both nonacademic domestic and EU grants to support the PALS centre drive for excellency, e.g. by offering free access to both the domestic and foreign researchers proposing the best projects.

Thus, operation of the PALS centre, which comprises activities based on the former Asterix laser, is financed not only from the budget of both Institutes involved, but mainly from grants from the Ministry of Education Youth and Sports for research centers, in some extend also from the project LASERLAB-EUROPE. PALS serves as open European research infrastructure for international experiments. The user projects selected by an International Advisory Board are partially covered by the I3 European activity Access. (Details will be presented in further sections tomorrow).

At the end I would like to stress one of the important functions of the PALS centre, namely education and training of young scientists in the field of the laser research. They will be very much needed in construction and running of the new laser infrastructures ELI and HiLASE supported by the European Union structural funds. These infrastructures are to be constructed in our country under the supervision of the Institute of Physics. It is pleasant to acknowledge that heads of both these projects have grown up as renowned scientists within the PALS center framework.

Now, after 10 years, PALS is still young, even growing. Yesterday I could see new parts, lasers and interaction chambers, for new experiments. So I wish long live to PALS and a lot of success in the future.