

The Zemplén Competitions and Memorial Days in Nagykanizsa as Homage to the Brilliant Hungarian Physicist

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ABSTRACT: In Hungary the national physics competition for the secondary schools (organized by the Ministry of Education) has no name. The most important competition held for more than 110 years by the Roland Eötvös Physical Society bears the name of Eötvös, the most famous Hungarian Physicist. In 1970 we founded a new style physics competition at the birthplace of Zemplén in the countryside town of Nagykanizsa. It has three new features:

1. The pupils have to solve practical, measurement problems after finishing the theoretical, numerical problems.
2. The competitors have to answer questions on the work and life of Zemplén.
3. Paying tribute to Győző Zemplén the pupils lay wreaths of piety and memory at the Zemplén statue in the schoolyard of the competition's school. By listening to lectures of the life and results of Zemplén and watching interesting physics experiments the competitors learn a lot in a friendly environment. So we can not only teach but educate them affecting their emotions.

We will show some typical theoretical and practical problems. Historical pictures featuring the daughter and sons of Zemplén who were well-known Hungarian physics and medical professors will be presented as they hand over the Zemplén-plaque and certificates to the winners of the competition.

We will present a book on the work and life of Zemplén and the history of the competitions.

My professor lecturing on the history of physics, Iván Abonyi, helped us develop an eye for seeing things from the point of view of physics history. This means that we, teachers of physics, introduce our pupils or students to the lives of physicists and to the history of discoveries, hoping that they understand the principles and laws of physics better and that we are able to kindle the love of the subject in them.

The education in the history of physics takes place on three levels. We work hard to keep the memory of physicists of local importance, and national and international significance and fame. We were in such a lucky position with Győző Zemplén, native to Nagykanizsa, that he is a physicist of both local and national, even international importance, so it was our utmost duty to make sure that his footprints in the history of physics will not fade.

The Eötvös Loránd Physics Society erected a commemorative plaque in the 1960s to mark the house at 2. Széchenyi tér, Nagykanizsa, in which Zemplén was born. The working group of the physics teachers led by László Kovács at Landler Jenő Secondary Grammar School decided to remember Győző Zemplén by launching physics competitions under his name. The first two competitions were organized at a county level but later they were called Zemplén Memorials Days with participants coming from all over the country.

We offer an overview of the Zemplén competitions and the various ways and occasions of remembering the outstanding physicist.

The competitions launched in the 1970s set an example for other schools nationwide, as there were only two significant national competitions at the time, and local initiatives mostly followed our example. The national competition, organized for pupils aged 17 and 18, involved a relatively great number of students, but it consisted merely of a five-hour problem solving session. Later it was precisely the Zemplén competitions that made the organizers add another experimental round to the national competition. A new competition for students aged between 14 and 16 was also launched and named after Sándor Mikola. The most prestigious Hungarian physics competition was initiated by Eötvös himself, and thus bears his name, but it has little more to do with Eötvös.

The Zemplén Győző Physics Competition in Nagykanizsa came up with several novelties. Each competition lasted for two days, and it wasn't just the students coming from all over the country but their teachers as well. The competition also involved getting to know the life and work of Zemplén Győző. In the beginning we laid wreaths at the plaque on the house in which he was born. After the erection of the Zemplén statue in 1974 we paid tribute there as well. The well-known physics teachers and renowned university professors who set the tasks were also present at the competitions, and offered a detailed analysis of the tasks of the competitions for their colleagues present, usually in great numbers, thus providing an intensive training opportunity for them. As we have already pointed out, a further distinguishing feature of the competitions was that there was always an interesting measuring task. The lecturers of ELTE University and the researchers of the Central Research Institute for Physics held fascinating lectures with amazing demonstrations every time, adding yet another individual touch to the Zemplén Memorial Days. It is important to note that the friendly atmosphere of the competitions helped the participating students and their teachers develop a rapport both for Zemplén Győző and the competitions as they had the opportunity to gain an insight into his *oeuvre*. It proved rather useful for the teachers to see physical problems set as competition tasks for their students.

The descendants of Zemplén were always invited to the competitions, whose presence made the whole event even more special. The awards and diplomas were first handed over to the winners by Professor Mrs Mátrainé neé Jolán Zemplén, Zemplén's daughter, an acknowledged physics historian. After her death, college professor Elemér Zemplén, his son, took on this duty. After the competitions were restarted in 1994, at the initiative of László Balogh and János Piriti, it was mostly university professor Gyula Radnai (Eötvös Loránd University) and László Kovács (Berzsenyi Dániel Teacher Training College) who held the lectures and the experimental demonstrations.

The participants and winners were awarded honorary diplomas and complimentary books, and could take the instruments, which were prepared with meticulous care, home with them. From 1979, the most outstanding teachers receive the bronze Zemplén medal by the Zalaegerszeg sculptor Péter Szabolcs.

The local and national dailies and also the physics literature always reported the event. It was great help both for the students and their teachers preparing for the competitions that we always published a book with the detailed and fully analyzed solutions of the theoretical and experimental tasks from the previous year.

The Berzsenyi Dániel Lutheran Secondary School in Sopron nurtures and fosters talented students in an excellent way similar to ours by organizing competitions named after Imre Fényes, Sándor Mikola and Miklós Vermes.

That former student participants are today renowned teachers, researchers, and even members of the Hungarian Academy Sciences, is a clear testimony to the fact that the Zemplén Memorial Days have been, and are, a resounding success.