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## Particle Physics Education in Hungary

In recent years various educational activities have been pursued in Hungary with the aim to raise the interest of high school students in natural sciences, and especially in physics. Our poster will present some of the key projects of broader interest for the scientific community:

**Hungarian Teachers Programme:** In 2006 we organized the first National Teachers Programme at CERN which since then expanded to many countries. Every year about forty Hungarian physics teachers participate in a one-week activity at CERN. These weeks are preceded by a meeting in Budapest where the participants get acquainted and we offer them some general information. They spend 5 days at CERN, lectures in the mornings, visiting experiments and solving exercises in the afternoons and evenings. We have a follow-up meeting at the end of the year, where we analyze the evaluation sheets of the various activities of the visit. That post-meeting is attended by all the teachers, most of the lecturers, the representatives of CERN and of the sponsors, including those of the Hungarian CERN Committee and of the Hungarian Physical Society. This programme is quite popular and heavily oversubscribed. Several involved teachers have organized student visits to CERN.

**Masterclasses:** They are organized at 3 institutions in Hungary: at Wigner RCP, Budapest, at University of Debrecen and at Óbuda University, Székesfehérvár. The Budapest masterclass is so popular that since many years we have to organize an additional one after the official IPPOG masterclass: we have the same lectures and same analysis job (at present CMS events) for the students, but instead of the joint video session we make virtual visits to Hungarian groups at CERN.

**Virtual Visits to CERN:** In these visits, developed on the request of Hungarian teachers, the schools' workstations have a 3-way audio-visual connection to the control room of an experiment and to a mobile unit. First the convenor in the control room introduces the experiment, then the mobile unit shows various places of the experiment, some of which are even off-limits for visitors.

**Detector Laboratory:** Two groups of high-school students have regular weekly work at the Detector Physics Laboratory of Wigner RCP. They listen to lectures on particle physics and do real research work building test detectors and electronics, testing them with cosmic rays and radioactive sources.

**Open Days:** Atomki and Wigner RCP organizes Open Days, the last ones were devoted to particle physics. Wigner RCP's last one coincided with CERN's Open Day and this year it will be devoted to CERN's 60th anniversary.

**Boson Bus:** Wigner RCP is preparing a moving exhibition of solid-state and particle physics. It will visit high schools all over Hungary and together with popular lectures hopefully raise the interest of the students in physics. The solid state physics part, called nano bus has been used already, the particle physics part will be a boson bus.

### Summary

**Primary author(s) :** Prof. HORVATH, Dezso (Wigner Research Centre for Physics, Budapest)

**Co-author(s) :** Srta. EVA, Olah (Mechatronika High School and Eotvos U., Budapest); Dr. SZILLASI, Zoltan (MTA Atomki, Debrecen)

**Presenter(s) :** Sr. VAMI, Tamas Almos (Wigner Research Centre for Physics)

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