

Outreach activities in Israel

- General press: Higgs and CERN
- Ensure that new generations are attracted to Science and Technology.
- Teachers and High School Students are a multiplicative factor.
- Need also to promote technical training.
- Conclusions

The discovery of the Higgs and Israel becoming a member state of CERN made it to headlines of all the newspapers

My part in finding the 'God particle': Meet the Mick Jagger of physics

Eilam Gross, professor of particle physics, opens up to Ayelett Shani at his Weizmann Institute office.

By Ayelett Shani Aug. 30, 2012 | 4:25 PM | 1



Israeli flag flies at CERN in mark of full membership

Blue Star of David joining flags of 20 other members of international physics laboratory.

By Ido Efrati | Jan. 15, 2014 | 10:51 AM | 12

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- Many interviews with leading Physicists (Profs. Rabinovici, Gross, Duchovni) as well as with various Ministers that became supporters of Science.

This articles only wetted the appetite to know more

- Members of the HEP community were continuously invited to give popular lectures to various forums:
 - Groups of retired people
 - Association of Engineers
 - Technical Schools
 - Many High Schools
 - Physics teachers seminars
 - Etc., the list is too long.
- Other initiatives were also promoted, like an evening of Science in bars and coffee shops, where scientists present popular lectures on various science subjects, including HEP.

But a more formal way had to be found

- In 2011, a prize was given to the best Physics teacher of the year: participate in the CERN School for Physics Teachers.
- The enthusiasm of the first teacher was such, that he was immediately convinced to start a participation of Israel in the Master-classes program. The following year there were 5 Master-Classes (including one for teachers) and it keeps expanding.
- Following the result of the first participation, in 2012, 2 Physics teachers participated and 3 in 2013 (we expect 4 in 2014, 2 of them supported by their school)

Government and Private Foundations became interested

- In 2014 there was a one week program for Israeli teachers (prepared in close collaboration with Mick Storr, from CERN), with the participation of 33 Physics teachers from all over Israel (including many Arab-Israeli teachers).

Typical program would last 4.5 days
from Sunday noon to Thursday evening

- The program would include lectures and visits:
 - Objectives, introduction to CERN and the Israeli participation.
 - Introductions to Particle Physics, Detectors, Accelerators, Cosmology and Dark Matter searches.
 - Visits of ATLAS, CMS, AMS and LHC Control rooms, SM18, LINAC and LEIR.
 - Construction of a cloud chamber
 - Evaluation of the program

Teachers bring also High School students

- In 2012 we had 20 Israeli High School students, coming for a similar program (most of them well prepared before the trip by our own colleagues).
- In 2013 we had 110 High School students.
- We expect more than 150 in 2014
- They all come back extremely motivated to pursue a carrier in either science or Technology.



Lack of technical know how for the future, both in Europe and Israel

- The good tradition of a Technical Meister is disappearing.
- It is becoming increasingly hard to find good technicians.
- One could establish the equivalent of a Summer Student program for children coming from technical schools (like the ORT system), where the first prize would be to participate in this training technical course at CERN.
- Such a prize will provide not only motivation for pursuing their career, but it acts as an amplifier, which can help in solving this problem in our society.

Conclusions

- LHC, Higgs and Israel becoming a CERN member has had an important impact in the Israeli press.
- Organize trips with lectures and visits at CERN for teachers and high school students have a multiplicative impact, and is not hard to find foundations that would gladly support such initiative.
- If we want a future, we need to promote science, technology and technical know-how, otherwise we will find ourselves in a world of MBA's.