

Young scientists at Atomki



Florent Doyelle



Quentin Ogier

Supervisor: László Kövér

They are from Blaise Pascal University School of Engineering Sciences, Clermont-Ferrand, France. They came to Atomki for two months in the frame of an internship as a co-operation between Prof. Bernard Gruzza and László Kövér. Florent Doyelle (FD) is learning about the quantitative surface analytical application of XPS and other electron spectroscopic methods, while Quentin Ogier (QO) is interested in the development of micro-controller based programmable power supplies for measurements control.

1. When and how did you decide to deal with physics? What was your motivation? Was there any vital person in your life who influenced your decision?

FD: I was more interested in natural sciences than in social sciences or humanities. My physics teacher at high-school offered me many interesting books to read, which guided me to a fascinating world. So I decided to deal with physics.

QO: My motivation is, to be a successful researcher and I just want to follow the same route of carrier as my mentor do.

2. What is your impression of ATOMKI?

FD: It is amazing that researchers here can do anything. At the lab, scientists could not only do physics, but also repair any broken instrument, when necessary. During my stay, they were teaching us and realized they have huge knowledge.

QO: Furthermore, they can design and build home-made machines form the scratch. I haven't seen such thing at home. We simply buy stuff we need.

3. What experience did you have at courses from physics in elementary and high school? What do you think, how youth could be more involved in natural sciences?

FD: As I experienced, lessons were not interactive before engineering school. We can just listen to teachers without taking any questions. Because of Bologna system, there are too many kinds of subjects at the university, which makes difficult to focus your interest.

It would be better to do experimental demonstration for children more often and to be mixed with fun, like games. Imagination is also important. For young children, abstract thinking is too difficult. I think, at their age, it is much more important to make them interested in science than to teach them science.

QO: Recently I went to the Forum shopping center and children were involved in many activities. They could try and test various things and for a moment I envied them. In my opinion, it would have been much better for us, being educated in a similar way.

4. What would be your favourite field at physics?

Both: Particle Physics.

QO: In France, to go to top graduate schools and universities is very difficult. You have to study at an excellent preparation school, which is not possible without good connections, even if, one is very good at studies. We like engineering and our field, but it would also be very exciting to make research related to Bing Bang theory, how the Universe was created and other hot problems in particle physics.

5. What is your purpose as a scientist?

FD: I am interested in energy, with respect to solar- and nuclear energy.

QO: Already answered this question earlier. I would like to follow my mentor's carrier path.

6. What languages could you speak?

QO: Besides French, I can speak good level of English. Learnt some German, but I can only read it.

FD: French, of course. Also, I have good working knowledge of English and not much German.

7. Would you like to move abroad to get experience or do you prefer to work in your home country?

QO: We work and study in Hungary now. A few times, in the frame of cooperation, we stayed in Prague, Czech. We can experience how to work with other people.

8. What is your motivation for research?

FD: I want to discover new things, e.g. new particles which cannot be explained yet. Also would like to prove a new theory by experiment. It is also true that the pressure is less here, than at a company.

QO: Well, there is less responsibility in science, than at a company. Working at a company, there are too many issues and productivity is the first. Peoples are treated as robots and not as humans. I like the freedom, what a scientist has.

FD: It happened at a big phone company in France, that more people committed suicide because of too much pressure.

9. Have you done any research before? If so, what field, where, with whom and what were your results?

FD: I worked on the improvement of a solar car called “Bélénos” in 2009-2010. I was involved in the display on the dashboard (programming an LCD screen), requiring self-training on microcontrollers programming and using MPLab software. I was also in charge to find sponsors for financing the large amount of money needed to improve the car, with the goal to homologate it as a town car.

QO: 2009-2011 Participated school industrial project (300H) Solar car “Bélénos”. I work on the development of a solar car named “Bélénos” at Polytech Clermont-Ferrand in order to obtain an accreditation to drive on French roads. My work was to optimize the brake system and incorporate a system of telemetry which could allow having much more technical information in real time on the solar car. I have developed skills in Mechanics, Electronics and Telemetry system.

10. Why did you choose Atomki?

Both: The Polytech Clermont provided us a grant, to choose a lab, where we wish to study and get experience within Europe. There is already a good co-operation between our group at the Polytech Clermont and prof. Kövér’s group in ATOMKI. So we came here.

11. In your research, which project would you like to work most?

QO: I prefer to be only a part of a project. Then I can focus more on problem solving and deal more with interesting things. It would be nice to work at CERN.

FD: My work style would be rather leading a project. I would enjoy it.

12. What are your future plans as a scientist in 5, 10 and 20 years?

QO: I plan to finish my PhD in France in 5 years, then going to United States. It is always more interesting to work other places.

FD: I would deal with topics related to energy problem. Maybe I start a small, own company.