

Election of the Dean's candidate for the term 2020-2024

General theses of the election program

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Preamble

The electoral term of the current faculty management expires on September 5, 2020. On December 4, 2019, the Academic Senate of the Faculty of Mathematics and Physics of Charles University (AS MFF UK) announced the forthcoming election of a candidate for the office of the Dean of the Faculty. This election will take place at the AS MFF UK meeting on April 22, 2020. I have decided to *stand as a candidate in this election*. The text presented below contains a *general outline* of my ideas about the course that our faculty should take in the next four years. The day after the candidate applications are closed, I will make public both the names of the Vice-Dean candidates – possible members of the next faculty management – and a more specific text of the electoral program, which will capture more visions of these potential future management members, on my web site.

First and second role of universities

Traditionally, under a primary role of a university we understand its *educational activities*, and a secondary role is associated with *science and research*. This concept is in line with my opinion, I see and I have always seen our faculty not as a science institution where also some teaching takes place, but rather as *a school where an excellent science is being produced*. However, I do not understand these two main and fundamental roles separately, and I certainly do not intend to develop either of them at the expense of the other. The symbiosis of scientific and educational activities remains one of the principal aims, advantages and prerogatives of the life of our faculty, and this understanding of both the roles of the faculty remains my priority.

Teaching and study

The number of applicants for bachelor studies at our faculty, expressed in the number of applications submitted each year, has been relatively stable during recent years and it corresponds to its position and prestige. However, the ratio between the number of applications and that of the students who actually enroll in studies, does not develop favorably in some study programs, and deserves that serious attention should be paid to it. *Targeted PR, focused on specific programs*, not just on studying at the Charles University in Prague itself, could help here. Helping with this promotion is, in a sense, a task for all educators, although the main burden lies certainly on the shoulders of the appropriate departments.

I also feel worried about the number of students who decided to leave our faculty during the first year of study. However, fundamentally increasing the number of students admitted or maintaining the number of students at the cost of a significant reduction of the required level of students' knowledge is not the route we should take. Rather, it is necessary to look for ways how to keep those students who "are able to make it" and yet decide to leave. One important mechanism is *to actively assist students in bridging the gap between high school and university*, notably by introducing, renewing or intensifying the

activities of tutors and mentors, including the use of the opportunities offered by the UK Point. I will support such an approach to students.

A very important aspect of teaching is its *internationalization*. This does not concern only the support of a student exchanges, but also the share of teaching in English at MFF UK. A parallel bachelor program in English has been successfully established in the School of Computer Science of our faculty. It is not my primary goal to force the introduction of similar English bachelor programs in the two remaining Schools (of Mathematics and of Physics), but if the authorities of these Schools decide to do so, they will have my support, too.

In the follow-up master's program, I find it important to offer students of all specialized programs a reasonably large portfolio of courses taught in English. In connection with this, I will support internationalization of teaching teams at the Faculty of Mathematics and Physics (visiting professors, integration of foreigners who will embark on a "tenure track", etc.). The faculty should also start preparing accreditation of a master's or bachelor's program in English as a *joint degree* with a proper foreign school, for example, as a result of the existing closer cooperation (4EU +, etc.).

It is very important for the faculty to pay a proper attention to doctoral study. The principal objective is not only to make this study attractive to our own graduates, but also to open it to foreign students. The search for opportunities to provide stable financial support to all PhD students (so that they do not have to "make money" elsewhere) is a very important precondition for their successful scientific growth and achieving the desired state in which the vast majority of PhD students successfully complete their studies within 4-5 years.

Science and research

One of the most important tasks of the next faculty management in the field of *science administration* will be an *active participation in the process of introducing new methods of evaluation of scientific performance* (Methodology 17+ and especially Internal evaluation of science at Charles University). This includes not only discussions at the level of Charles University (UK) level to clarify and to try to influence the impact of new methods of assessment on funding of faculties, but also the gradual introduction of new methodology into the life of MFF UK. The relation between the "old and new" in the preparation of the scientific part of the faculty budget will be the subject of very important discussions not only at the faculty management level, but also within the wider faculty boards. I consider that the administration's support in obtaining grants and projects, organizing contract research and corporate cooperation, supporting the partnership program, sponsorship and donation, are of equal importance in this area of activities. Special attention should be paid to applicants for major grants and projects, especially ERC grants. *Streamlining and eventually reorganizing the work of those departments to deal with the organization and support of these activities* will be one of the key tasks of the next management.

However, administrative support for scientific activities is not the only aspect of the Faculty's activities in this area. It is important to support academic/scientific mobility, creation of international research groups, presence of foreign postdocs at MFF UK, and scientific growth of postgraduate students or students of the follow-up master's study, including their integration into scientific teams.

Administration and a proper balance between centralization and decentralization

I still see MFF UK as one faculty, not as a union of three Schools. The management of the faculty, the plan for its further development, the budgeting of the faculty, the computerization of the agenda and some other important administrative activities should remain centralized. At the same time, I feel that the specifics of our three Schools are not only due to their location in separate Prague places. Finding an *appropriate balance between activities* to be performed centrally and those that can be delegated to Schools (either partially or completely) is a very important task for the faculty itself. The aim should be to streamline the administrative activities associated not only with the everyday life of the faculty or the personnel agenda, but also with teaching and science, especially as regards grants and projects. I am a realist, and therefore I cannot promise that the administration will decline substantially – it seems that the outside world is determined to take the opposite direction. However, I will try to make the administrative work as effective as possible.

An important partial step on this track will be, among other things, the effort to better inform all the faculty members, including the creation of clear instructions and manuals. This is also related to the completion of the transformation of the faculty website including the pages of the Schools or even Departments, and the digitalization of some other agendas, such as faculty forms. However, half-digitalization of the process or its improperly chosen combination with traditional paper form usually does not simplify work. Also, the system which cannot be called *user-friendly*, is often not used because of this. It is also necessary that all these steps take place in parallel in the Czech and English versions as “English-friendly” systems.

Management and further development of the Faculty

An important task will be to review the budgeting of MFF UK, especially in connection with the new principles of funding of science at the University and its faculties, while maintaining the basic philosophy of budgeting (Schools’ budgets and central budget). The basic principle of transparent budgeting of Schools, based in particular on provable achievements in scientific and educational activities, should be maintained. Equally important will be the effort to actively participate in more efficient use and utilization of institutional and project funds throughout the year, with an effort to *minimize the amount of unused funds* and to achieve an *adequate amount to remain in faculty reserved accounts*.

The specific tasks of *development* include the following:

- to finish all work related to the new building in Troja, including the possible expansion of the buffet area and a general effort to improve catering in Troja campus;
- secure financial resources for the replacement of facades and roof cladding of "older" buildings in the Troja area; parallel to this, to prepare upgrading the attic in the building Ke Karlovu 3 to office space; or the reconstruction of other premises of the building (upper and lower meeting rooms) with a discussion on their use, taking into account the current financial possibilities of the faculty;
- (last but not least) to play an active role in the construction and subsequent use of the Albertov new building, and to explore possibilities for further spatial development of the faculty.

Third and other roles of the faculty

Undoubtedly, the faculty's activities include everything related to the so-called third role of faculties and universities. Personally, I will mainly support activities aimed at proper *PR and popularizations* of the areas of both our scientific activities and our study programs. I am also interested in efforts to improve the situation in the teaching of our subjects at lower levels of education, including efforts to raise awareness of their importance. This includes the organization of courses for high-school teachers led by an effort to *actively work in the field of improving their professional qualification*. In summary, these are activities that could be expressed by the slogan "Physics, informatics, mathematics and teacher training in these subjects - what next?" I also support cooperation with companies, whether in the form of contract research or developing all types of partnerships with external entities. Besides the financial profit, these activities can primarily bring experience with practical problems that are valuable [not only] to our students and towards their future employment.

Our faculty is a part of Charles University. *Cooperation and active communication* with the UK management and the Rectorate is very important. In particular, I will support closer cooperation between the Vice-Deans and the Faculty Administration with the relevant Vice-Rector and the relevant Rector's Departments. The faculty should also focus on the nomination of suitable candidates for positions at the university level. Finally, cooperation of corresponding Vice-Deans and other authorities across related faculties and Institutes of the Czech Academy of Sciences, initiation of meetings and finding common strategies are also very important.

A few words at the end

Antoine de Saint-Exupéry once said: "The highest form of luxury consists of good interpersonal relationships." I think our Faculty deserves this kind of luxury. My goal is that the environment in which we spend most of our active time of the day is welcoming. I am talking not only about internal communication, overcoming barriers between individual workplaces, departments and locations, but also about meetings of employees, both official and less official. I also perceive and welcome the signals that the Academic Senate of the MFF UK is ready to be a tough but constructive partner of the management of the faculty.

I spent my study time at "Matfyz" in the 1980s, and since 1990 I have been employed here. I therefore spent four decades of my life at the faculty and I never regretted this decision. I regard MFF UK as the best faculty in which one can study our fields of science in the Czech Republic and on which one can work. I am proud of the results achieved by those who are employed, have studied or are still studying at "Matfyz". If I am elected the Dean of the Faculty of Mathematics and Physics for the term 2020-2024, I will do everything possible to ensure that as many people as possible will have the same feeling, independently of whether they would stay inside or work outside the faculty.

M. Rokyta, February 26, 2020