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The report provides a well-organized overview of activities in the Center during 2014. The emphasis is on research activity within the Center and on research conducted in collaboration with external, often international, colleagues. There is little attention paid to the teaching activities of the individual researchers, although it is mentioned that their teaching load is enormous. Some more specific discussion of the teaching activities of members of the Center, for example documentation of teaching loads, might be profitably included in future reports. This will put into clear perspective the research productivity that is exhibited by most members of the Center, and would undoubtedly aid in explaining the performance of any lesser productive individuals. Using, as a simple summary statistic, the average number of papers published in quality journals per researcher, it can be argued that 2014 represents a significant improvement over the previous year. Over the recent past, an average rate of just under one paper per year is reported. 2013 was an anomalous year for its low productivity. For mathematical research, one paper per year is an acceptable figure. However, the average for the Center could be expected to be somewhat higher, especially with the inclusion of the number of highly productive researchers housed in the Center. Research funding continued to increase in 2014 as did the level of international cooperative research. Major investment of time in programs designed to improve the appeal of mathematics at the elementary and high school levels can be commended. It will continue to be necessary to recognize the time involved in such activities, and to adjust research expectations appropriately for those heavily involved in such activities. This is not an easy task for administrators, but it must be addressed. The growth in the number of integrated members of the Center from an average of about 50 to the current figure of 63 is very impressive and confirms that appropriate authorities are confident that the Center is using funds wisely and that funding additions to the research faculty of the Center will be productive; certainly a strong vote of confidence. The impressive array of submitted and accepted paper in all four research groups in the Center promises even better productivity indices will be evident in the next few years. The addition of Alan Crain in the algebra group can be expected to boost research productivity further in that group, especially if he can develop research partnerships within the group. Overall, the report paints a very positive picture of the present status of the Center with key indicators suggesting that, with the available increased number of researchers, even better things can be foreseen in the future.

Report on the CMA/FCT/UNL 2014 Annual Report

I think that there are two main aspects of the report that should be noted. First, the continuing activities of Center members (papers, talks, grant activity, honors, etc) continue to be strong and, likely, on an upward trajectory. It appears that this firmly establishes this Center as a serious operation within Portugal and, to a lesser extent, in the world of mathematics generally. The activity is strong in all four subdivisions. This does not mean that there is not room for progress in the contributions of the Center, but what has been done is quite worthy of praise as a step in the forward movement of this group.

Second, although, it may not happen that every initiative is highly successful, I am especially impressed that, as a Center, there is clear interest in finding creative ways to use Center resources to improve the product and visibility of Center subgroups. This includes "postdocs", term visitors, and seed money for new initiatives, etc. This is a necessary condition for future progress, and I also hope that it will prove sufficient. In my experience, a few good young people and more senior, but highly active people can really do a lot to spur the success of such an operation. I think that only time will tell if particular initiatives will work out well. I hope and expect that some will.

The infusion of new members is both an opportunity and a risk. I see that the difficulty of integration and fairness of use of resources will be tricky. On the other hand, new blood (if it is that), properly welcomed can do a lot for an organization.

The Center has been fortunate with the view of funding agencies, but it seems to be a good investment, so far.

Charles Johnson, Advisory Committee Member

Comments on the Scientific Report 2014

The presentation is excellent. I found useful information in many aspects. Perhaps it would be of interest to produce other indicators relating productivity per IM and quality of journals and also some analysis of the impact of papers published by members of CMA, may be counting the number of citations per paper or similar.

There are several good news: the productivity has increased with respect to the previous year, a new investigator FCT has been incorporated and there will be two post-doctoral positions. The introduction of the productivity criterion seems a good idea. In connection with this criterion let me point out that nowadays many papers are the result of a collaboration by three or more people. This fact suggests some care in the computation of the productivity criterion a). Perhaps some correction factor could be incorporated when several members of CMA are authors of the same paper.

A large number of new members will be incorporated to the groups of Algebra and Differential Equations. One can expect an increase of the productivity of these areas.

With my congratulations for all the achievements and my best wishes for the future, Rafael Ortega.