

Open letter: English summary

The signers of the open letter are deeply concerned about the way bibliometry is used to determine the funding for the Mathematical Institute. Resources at the Institute are too low to provide effective seed money to its young researchers, new faculty, and faculty who are developing new initiatives. This is a result of the distribution algorithm that has been applied.

Our concerns are:

1) Bibliometry is a crude tool, originally invented to give librarians a criterion to determine which journals should be bought; it was not meant to measure the quality of the work of scientists. Many scientists of high standing have protested against its use to measure the quality of scientific work. Peer evaluation is still the best way to determine quality.

2) Impact factors of journals do not represent the quality of the papers published in them; they often depend on other, unscientific, influences and are sensitive to fraud. Important mathematical journals are ranked low because they cover a large variety of topics in a single mathematical area; but they also publish articles of highest quality. Open access journals with article processing charges tend to have much higher impact factors although the quality of the papers is not higher than in other journals; so bibliometric points can be simply bought by those who have the money.

3) Publishing mathematics is entirely different from publishing in other (in particular, experimental) sciences. Using bibliometry, apples are compared with oranges. Mathematical papers often unfold their impact after many years, but then are still read and used many decades later. In contrast, many papers in the experimental sciences are outdated by new results after only a few years. In the past, mathematical innovation of greatest importance (e.g. providing the basis for public key cryptography or crystallography) originally started with a minimal readership, so the initial impact factor was miniscule. Also, the refereeing process is in average much longer than in other sciences.

4) Bibliometry does not take into consideration the amount of pages (in particular, per author) of a paper and the amount of effort and time it took to write it.

5) Cutting off all papers in journals with less than 35 points constitutes a random threshold to the disadvantage of mathematics. Many important journals serving particular areas in mathematics lie below. The fluctuations of the rankings make such a threshold a highly unscientific tool, with journals dropping below it unexpectedly while a paper is still being refereed.

6) Scientists form a community of human relations (which supports research); decisions of where to publish traditionally depend on other factors than the impact factors of journals. Impact factors do not measure whether the readership of a journal is the most suitable for a particular paper. Evaluation by bibliometry pressures scientists to give up these traditional ways of publishing, thereby destroying the human factor. Also, it pressures scientists to fragment their results in order to publish more papers. This is not in the best interest of science and society, and we choose to resist these pressures.

7) Using crude measures in the fight for funding pits departments against departments, colleagues against colleagues, who should rather work together closely and in mutual respect in order to improve science and education. Bibliometry (as well as the "n zero" classification and its consequences) instills fear in

scientists but will not improve the quality of science. Rather, it generates the output of a lot of hot air instead of well researched and important results.

In conclusion, we believe that Mathematics should not be compared with Physics and Chemistry by means of bibliometry. A mathematical institute should be compared with other mathematical institutes and departments. Under such a comparison in Poland, our Institute fares well. In no case, measures should be used that do not take into consideration the differences between the sciences, use random algorithms and favor short-lived impact factors over the undisputable long-term impact of mathematical research and education.