

I was asked by Dennis Normille of Science Magazine to comment on the current situation around the ICM and the calls to sever ties with Russia's academic institutions

March 6, 2022

The readers of Science should be familiar with the concept of an event horizon: while you are not squashed immediately after crossing it, no force in the world can bring you back. The maniacs in the Kremlin have pushed Russia into a black hole and are trying to take Ukraine, and maybe the whole world, with them. In a moment like this, the role of science is reduced to the basic requirements of being level-headed and rational in an urgent attempt to save both.

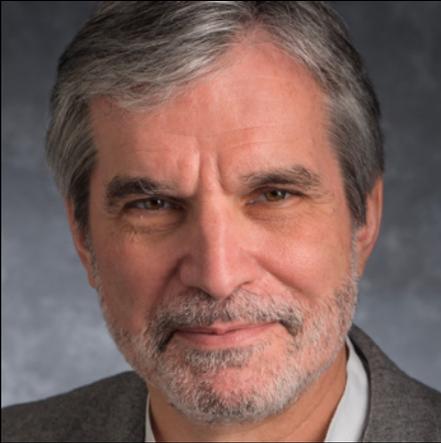
If the world survives, I would leave it to historians of the future to debate where exactly Russia left its age-old orbit, with its perihelia and aphelia of autocracy. Nobody I know saw THIS coming. Ever a source of negative examples of political institutions, Russia was also the home for Euler, Tschebyshev, Kolmogorov, Gelfand, Konstantinov, and many, many other global giants of mathematics and mathematical outreach.

Again assuming the world survives, I think your questions fall broadly into two categories. First, should the international mathematics community try to maintain its ties with their colleagues inside the black hole? Second, can mathematics survive there?

On (1), my answer is an absolute "yes". I ran for IMU EC in 2018 on the "Mathematics is for everyone" platform and I stand by that principle. I view mathematics as pure objective truth in service of all future generations and believe that kids born in, say, North Korea, also deserve to know and use it. Some may say it is a security concern, but the latest research in mathematics is freely available to anyone anyway. What is a real danger, I think, is that in 2022 AD many people still stick to their own tribal logic whose sole purpose is to justify the unjustifiable. Every advance of science, especially mathematics, and even of basic numeracy, I view as a defeat, albeit small, of that tribal logic, a liberation from it.

On (2), having spent my life promoting mathematics, of course I wish the best of success to every researcher, teacher, or student, but ... Progress in mathematics is a collective endeavor, which very strongly depends on having a certain critical mass and powerful catalysts of academic exchange, including the simple acts of going abroad for a PhD, a postdoc, or a conference. In today's world, there will be order(s) of magnitude difference between those who are a part of the global community, and those who are not. Of course, even a hermit may have a good mathematical idea, which may even be new in a tiny fraction of cases. But will there be colleagues and students to put it to the best use? In total isolation, can mathematics stay at a high enough level to be the backbone of science, technology, and of a modern prosperous society? The probability of that I would sadly compare to evaporating intact out of a black hole.

Andrei Okounkov



On 3/7/22 3:42 PM, Dennis Normile wrote:

Hi Andrei,

I got the answers. Thank you very much. I really appreciate the time and thought you put into this.

Unfortunately, as I was writing up something to send to the editors this morning they told me they had gotten so much information from Europe and the US that they didn't have room for further comments.

I'm very sorry to have bothered you and wasted your time.

I apologize for being slow to let you know. I was quite upset when I heard from the editors.

One point you might confirm for me. Do you know of any Japan-Russia collaborations that are being terminated? Or being continued? I'm finding it difficult to confirm what position Japanese institutions are taking.

I hope we can keep in touch for happier times.

Best,
Dennis