

Letters to the Editor

ICM 2018 – What Really Happened in Rio de Janeiro

Marcelo Viana (Instituto de Matemática Pura e Aplicada, Rio de Janeiro, Brazil)

I have attended every International Congress of Mathematicians since Kyoto 1990. Twice I was an invited or plenary speaker. Last year, in Rio de Janeiro, I chaired the organising committee. On all of these occasions, I was there because I enjoy the lectures, the discussions with fellow mathematicians from around the world and the unique role played by the Congress. Over the years, I have read many good accounts of the ICM activities. And then there was the unbelievable piece that the EMS Newsletter just published: *ICM 2018 in Rio – A Personal Account Part I*, by Ulf Persson.

The author, an editor for the Newsletter, gets basic facts wrong: Hyderabad 2010 preceded Seoul 2014, not the other way around. He insults Congress participants: ICMs are attended by several thousand people but, to believe his article, apart from a few hundred who have to be there, including journalists, the rest are merely there as tourists. He seems poorly informed; only upon arrival does he find where the venue is located. His goal is to interview the new Fields medalists, and yet he fails to meet half of them, despite their being available for several days at the Congress, and being interviewed by everyone else. Bizarrely, he complains that Fields medalists used to be “old established men” and now are “mere babes (sic)”. Maybe this just proves that youth and old age are relative. I cannot disagree with that.

But truth and fairness are not relative concepts, and the article contains little of either. Instead, prejudice and smear are all over the place. Many of the falsehoods were refuted in an interview I granted the author, but he chose to ignore it and print them anyway.

At the heart of the text lies the claim that “Brazil does not really care about mathematics, and by implication other intellectual pursuits; instead it is a hedonistic country geared towards soccer and dancing samba on the beaches,” which is insulting and plainly wrong. How does anyone dare to reduce a diverse, culturally rich nation of 210 million to such stereotypes?

That such a piece of bigotry was published by the EMS Newsletter defies rational explanation. Even if “the views expressed in this Newsletter are those of the authors and do not necessarily represent those of the EMS or the Editorial Team”, that does not exempt the EMS and, more directly, the Editorial Board from responsibility.¹

I cannot address the whole article here – there are just too many wrongs to be righted – so I have to settle with setting the record straight on a few main issues. Hopefully, this will help prevent such an atrocity from ever happening again: the EMS Newsletter deserves better.

Brazilians do not care about maths

At the ICMs 2002 to 2014, the opening ceremony was chaired by the host country’s head of state. It was not so in Rio de Janeiro, and one may ask whether that might reflect a lack of interest for science and mathematics on the part of our government. The answer is no.

To begin with, even under adverse economical conditions, the government provided the bulk of the (6 million euros) budget of the Congress, besides funding the International Math Olympiad 2017. Surely that counts for more than a speech or two. Besides, the reason the President could not come was that at that time he was signing a US\$ 1.5 billion IDB loan to science in Brazil. Not something we would complain about. Last but not least, the government was officially represented at the ceremony by the Minister of Education, the ICM’s main sponsor.

All of this was explained to the author in our interview; he just chose to omit it. It is clear from the text that purporting to believe our government does not value mathematics is a pretext for claiming that is part of who we are as a nation: “Brazilians do not care about Fields medalists, they are instead heading for the beaches or the soccer stadiums”. This is absolutely astonishing.²

¹ President Volker Mehrmann of the EMS immediately denounced the article, offering to express his opinion as an addendum to the present text. The Editorial Board acknowledged they have a moral responsibility, and accepted my request to publish this rebuttal, but have yet to comment publicly on the matter. I am told that my reaction “will be a subject of our analysis of the attitude and the quality of this author, who is a member of the Editorial Board”. Hopefully, that will result in something good and meaningful.

² In Zürich 1994 the President of the Confederation did not attend the opening ceremony. Would the EMS Newsletter publish a claim that “the Swiss do not care about Fields medalists, instead they are geared towards eating cheese fondue”? The Swiss government was represented by the Minister of Home Affairs, who delivered what must have been the most intelligent speech about mathematics ever uttered by a politician. Check pages xiv–xvii of the proceedings.

After all, we are talking about a country where 2014 Fields medalist Artur Avila has household celebrity status, and which celebrated its promotion to IMU group 5 as a matter of national pride. A country that holds a national mathematical Olympiad attended by 20 million kids (yes, 10% of our population!) every year, and engages in a very successful nationwide popularisation initiative,³ the Biennium of Mathematics 2017–2018.

Besides, over five thousand Brazilian schoolkids and teachers visited the ICM venue to attend public lectures by the likes of Ingrid Daubechies and Cédric Villani, and stood in line to get the autographs of Fields medalists. That is, of course, not mentioned in the article. Had the author just cared to be at one of those occasions (yes, they were advertised), he would have been able to get his interviews...

The opening ceremony

We invited the 576 gold medalists of the Brazilian Mathematical Olympiad to participate in the opening ceremony, including the Fields medal awards. As I mentioned in my speech, their presence also symbolised that this ICM in Brazil has always been about the future.⁴ They came back the next day to receive their own medals in that same hall, in a ceremony that was attended by three Fields medalists. The author does not care to mention any of that; perhaps it would ruin a pre-established narrative.

Instead, he explains that: “half-naked dancers, billed as Aborigines, with fancy headgear and elaborate tattoos took to the stage as well as to the aisles of the auditorium, performing to loud primordial music”. Seriously? In 2019, is this how you want to portray indigenous peoples of the Americas performing their ancestral rites in a ceremony that celebrated (to general applause: ask your colleagues and check tinyurl.com/yyo47c8p) the diversity of sources of the host country’s culture? Were we talk-



The gold medalists for the Brazilian Math Olympiad stand to be awarded at the venue of the ICM 2018 opening ceremony.

³ Formally proclaimed by the Brazilian parliament, and supported by the government.

⁴ Pierre Pansu wrote at Images des Mathématiques (images.math.cnrs.fr): “Je trouve que la présence des lycéens a donné un sens à l’ensemble de la cérémonie. [...] faire rêver les jeunes, leur donner envie de se lancer dans des études de mathématiques et de se frotter à la recherche, cela mérite un peu de décorum, et cela justifie le travail de toutes les personnes impliquées”.



Cédric Villani addresses over 1,200 Brazilian school teachers and students at one of the five ICM 2018 public lectures.

ing of European traditions, would such language be used in the EMS Newsletter?

Security in Rio

Another subject the author seems to think he knows a lot about, despite this being his first visit to South America. A cab driver directed him to the ATMs on the second floor of the Rio airport, which, he later found out, “are notorious for being regularly skimmed”. We do not know who said so, nor how reliable that person is. I am myself a regular user of ATMs at the airport, and have never heard of that theory, nor ever had any problems with them. But the author has ‘proof’: “sure enough, a few months later the credit card company contacted me concerning a suspicious post”. Again, we are not told whether the company actually linked the post to those ATMs.⁵ And, come to think of it, “a few months” is an awfully long time for such things...

Rio is a city of 6.7 million people in a developing country; it does have serious security issues,⁶ and visitors are well advised to exert caution. But enriching a story with unsupported allegations, possibly just because they may sound plausible,⁷ is unethical.

And the fact remains that, for all of the scary stories, not one single security incident involving any of the 3,000 plus ICM participants was reported to the organisers during the whole Congress in Rio. Except, of course, for the infamous Fields medal episode.

⁵ Shortly after the ICM, a massive breach of credit card data was reported that affected some 500 million customers of the hotel chain Starwood Guest worldwide. A couple of our partner hotels were affiliated with Starwood, but the breach had nothing to do with the Congress.

⁶ Still its reputation is overblown. Some major cities in developed countries have worse crime rates, but that is seldom mentioned. Exposure from being a major tourist attraction does Rio no favors in this regard.

⁷ Swimmer Ryan Lochte, a gold medalist at the Rio 2016 Olympics, falsely reported he had been robbed, rather than confessing to his girlfriend that he had been partying. Most people believed him – in Rio, what else, right? – for a while. It did not end well for him.

Theft of the medal

“It involved the theft of Birkar’s Fields medal, whether by design or accident I am not sure”. Is this an attempt at humour, or the birth of a conspiracy theory? Here are the facts:

Right after the end of the closing ceremony, I was informed that a briefcase containing Caucher Birkar’s Fields medal had disappeared. We were horrified, of course, and we immediately took all measures within our reach to find it.

We reported the theft to the authorities, obviously, and a senior member of our staff was assigned to assist Caucher in all things related to the incident. Our team searched the venue thoroughly, and the briefcase was soon found, although the medal was gone. We also screened the security videos and, within the hour, we had found footage of the theft (check tinyurl.com/y5owfgun): a man, his face clearly visible, is seen picking up the briefcase from the chair behind Caucher as he stood up to be congratulated. We gave the video to the police, and it was widely publicised by the major news organisations.

The author’s claim that there was no security is nonsense. The ICM venue was patrolled by 50 security agents, 18 of whom were assigned to pavilion 6, where the opening ceremony took place. Metal detectors were used at the entrance, and only registered participants carrying their ICM badges were let in.⁸ The premises were surveyed by security cameras. And the access to pavilion 6 was controlled by a team of 9, who checked the badges once more. The fact is that in such large events,⁹ involving thousands of people, it is nearly impossible to ensure that such an incident does not happen.

The second medal

We also had concerns of a more human nature. Caucher confided to our liaison person that his little son Zanko does not like it when he travels. To be “allowed” to come to Rio, Caucher had promised the 4-year-old he would give him the medal upon returning home. We had to act quickly.

Fields medals are minted in Canada, under the authority of the University of Toronto. As the chair of the organising committee, it was my responsibility to keep the medals (as well as those for the Nevanlinna, Gauss and Chern prizes) until they were handed out. I proposed to the IMU president and secretary general that we give an available spare copy of the Fields medal to Caucher (the organising committee paid for it), and they agreed.

In the interview that followed the “second Fields medal ceremony”, a good-humoured Birkar joked that the theft had made him a lot more famous. The same is true for the Fields medal and the Congress itself, which got an unprecedented level of media exposure, so that some good came out of this incident after all.

⁸ My wife and children were held at the entrance until I had their badges brought to them.

⁹ A few months before, a similar incident happened at the Academy Awards ceremony, when the Oscar trophy of actress Frances McDormand was stolen. Fortunately, the trophy was later recovered.

ICM in the news

“Maybe the congress did not even appear on national news?” If the author actually cared for the answer, he just had to goog it. Or pay attention.

No less than 154 journalists, from 9 different countries, covered ICM 2018. ICM TV, an independent operation, continuously produced and broadcast material about the Congress, that was also relayed to local commercial TV networks. Our own press team, consisting of 20 professional reporters (3 photographers) and 3 YouTubers, facilitated the work of their fellow journalists, in addition to producing ICM material themselves, including speakers’ profiles and interviews with various participants.

As a result, 200 (overwhelmingly positive) reports about the Congress were featured on television channels and in newspapers around the world, 2/3 of them in Brazil. The ICM 2018 social networks reached 2.36 million users, and the website www.icm2018.org had 416,000 page views during the event alone.

Had he just cared to know, the author would have learned that wide coverage of mathematics is not unusual in my country: the Congress, the Fields medal and all things mathematical were regularly on the Brazilian news throughout the Biennium of Mathematics years, often on prime time.¹⁰

A few hard figures: 2,697 articles about IMPA or the Brazilian Math Olympiad in the written press or television channels; 2.44 million accesses to IMPA’s website; 7 million accesses to our social networks. And that was in 2018 alone!

We also created a prize for scientific journalism sponsored by IMPA and the Brazilian Math Society. The awards were a highlight of the ICM’s closing ceremony but, needless to say, they are not mentioned in the EMS Newsletter article.

What about the fire?

“There seemed to be some general confusion [...] There were rumours that due to the fire, things had to be improvised at the last moment”. Confusion? Rumours? Even if one discounts lazy information and sloppy statements, this account remains inaccurate and unfair. Let us get the facts:

On the evening of July 29, less than 60 hours before the start of the Congress, a fire broke out on the roof of the convention centre’s pavilion 3, which was planned to host the opening ceremony and the plenary lectures. Our own fire brigade, soon joined by the state’s firefighters, was able to contain the fire on the outside, but the whole setting (stage, equipment, chairs, carpets etc) was nevertheless ruined. This was a serious blow that put the whole Congress at risk. Our reaction was swift.

I flew back from São Paulo, where the IMU General Assembly was taking place, to take control of the situa-

¹⁰ Jornal Nacional, the main evening news, with more than 20 million viewers every day, featured a one-week series with myself as the host: over 26 minutes of television prime time devoted to mathematics. How often does that happen, in any country?

tion. We arranged with the convention center to move the activities to nearby pavilion 6. We hired extra teams and all the necessary infrastructure (including another 28-metre-wide LED screen!). And we set a task force that worked around the clock for two whole days.

Thus, the opening ceremony was held as scheduled, only a few metres away from the original location. That was a remarkable feat of hard work and ingenuity, one for which I will always be grateful to our fantastic team. But there was nothing ‘improvised’ about the ceremony. The programme went on as planned and all rehearsals took place in the new pavilion, which also proved to have great audio and video facilities.

What do I take from it?

As I wrote in the IMU-Net: “Feedback from the participants has been invariably very positive, often outright enthusiastic, and that is most gratifying. We worked hard to make this ICM a memorable event for everyone, and it feels good to be told we achieved our goal.” I stand by those words. It would take a lot more than one individual abusing his position to advance prejudice to taint our pride in what we have achieved.

Still, harm has been done that cannot be undone. Mathematicians in developing countries face many great challenges. Respect from our colleagues abroad is critical, not least because it reflects on the domestic standing of mathematics research in our countries. We can only hope that this was not in vain, and that good things will come out of it.



Marcelo Viana is a professor of mathematics and the current director of IMPA – Instituto de Matemática Pura e Aplicada, in Rio de Janeiro. His main research fields are ergodic theory and dynamical systems. He has supervised 39 Ph.D. students from 11 different countries. He was an invited speaker at ICM 1994 and a plenary speaker at ICMP 1994 (math physics) and ICM 1998. Viana is the recipient of several academic distinctions, including the membership of four academies of sciences. He is a former vice-president of the IMU and president of the Brazilian Math Society, and he chaired the ICM 2018 organizing committee. He writes weekly about mathematics in Folha de São Paulo, Brazil’s most prominent newspaper.

Comments on my article “ICM 2018 in Rio – A Personal Account”

Ulf Persson (Chalmers University of Technology, Göteborg, Sweden), Editor of the EMS Newsletter

My article on the Rio Congress has caused some furore. This, as I understand it, is due to a misunderstanding of its nature, a misunderstanding further exacerbated by it being published in two parts. It is simply the report of a hapless and clueless ‘tourist’ at an ICM written in a picaresque manner. To those who unfortunately have misunderstood, I offer my sincere apologies, and also to those who may have understood, but thought that such a report is inappropriate in a journal such as the EMS Newsletter.

I am of course tempted to address (and rebut?) every single criticism as formulated in the letter by Marcelo Viana, but *pace* Oscar Wilde not every temptation should be indulged. Would that really be of interest to the general reader of the Newsletter? [Maybe not even to Viana himself?] Better to follow the example of a lecturer who explains the technical points afterwards in private to a few concerned. Anyone who is curious is encouraged to contact me.

Statement on the two articles ICM 2018 in Rio – A Personal Account Part I, by Ulf Persson ICM 2018 – What Really Happened in Rio de Janeiro, by Marcelo Viana

Volker Mehrmann (Technical University Berlin, Germany), President of the European Mathematical Society

Writing a personal account about a congress is very useful information for readers of the Newsletter and I think that they generally really appreciate such articles. Constructive criticism of the way congresses like the ICM are organised is certainly important and welcome, and the IMU has taken this issue up recently in a discussion blog.

Nevertheless, when writing such a personal account it should be clear that the facts are correct and the article should be respectful and not patronising towards the country and the community of the organisers. I did not attend the the ICM in Rio and only began my presidency in January 2019, but actually, increasing mutual respect for differences in people and cultures, and the differences in the various kinds of mathematics we are doing is a very important item on my agenda as president of the

EMS. This includes decreasing the gap between rich and poor countries, filling in the trenches between pure and applied mathematics, and closing the gender gap in our community. In this respect, the Newsletter article by Ulf Persson was very counterproductive.

Despite our joint belief in the great importance and beauty of mathematics, this is not the general opinion in society or even other sciences, and we have to face the fact that we are a small community. Maybe this unpleasant incident can be seen as a catalytic wake-up-call in our community that arrogance and prejudice is not tolerable, and that we should treat each other with respect. Unfortunately, as we have seen on many occasions (not only this one), we still have a long way to go and I really hope that all of us in the mathematical community can follow this path together.
