Young mathematicians' column

The pandemic situation again forces us to write about "online everything", but we do it not only to complain; we do believe that some of the new habits are actually fruitful, and may possibly remain even when the situation returns to normal. In this issue, we will address the question of conferences and other collective events. You yourself have surely "attended" some online seminars, or given an online talk, or even organized something (either because you really wished to do this, or because you were obliged to take online an event that had been planned much earlier). And of course, you have also noticed how much easier it is than it used to be to listen to "great people" all around the world.
But here, we will not merely talk about online conferences in general: rather, we will focus on those that are organized for/with/by young scientists. This is a very important question, because while for a senior researcher this last year may have been no more than an unfortunate less-productive period, for a young postdoc one year is practically half-life. The following two texts are just a couple of examples of a great number of events that were organized during this difficult year. Some of the ideas presented may seem quite obvious when you read them; nevertheless we believe they are worth spelling out in order to share our experiences and provide motivation. The first one, the "Junior Global Poisson Workshop", concerns an online conference that also included a part specifically devoted to social interaction. The second one, "Finding paths in a totally disconnected space: collaborating across universities" is written in an informal style, since its purpose is to recount activities that normally would happen precisely in informal circumstances, such as around the blackboard at the coffee machine. As always, please enjoy reading, and feel free to share your thoughts and experiences with the editorial board.

Vladimir Salnikov

Junior Global Poisson Workshops

Like all major global events, the coronavirus pandemic of 2020–2021 (let's be optimistic!) is going to have a lasting effect on our society, and in particular on the mathematical community, presenting us with new challenges but also new opportunities. Just one year ago, the mere suggestion of inviting a speaker to give a virtual seminar or organising a fully online conference might have sounded ludicrous to many of us. But, in the face of a new reality, our community stepped up and quickly adapted, and we demonstrated time and again that we can continue to interact, to collaborate and exchange ideas, and even to see each other and socialise (in many cases more often now than we ever did before!). Across multiple time zones, we helped each other unmute our microphones and connect our tablets, amused each other with silly virtual backgrounds, and embraced the healthy bring-your-children-and-pets-to-work attitude.

This new normal also presented us with an opportunity to address another old problem in our community: the struggle for many young mathematicians to get noticed. Last year, we (the authors of this letter) – encouraged by our colleague, friend, and mentor Eva Miranda, and with the financial support from the NCCR SwissMAP – created a recurring series of fully online workshops called *Junior Global Poisson Workshops* (JGPW). The aim was to have a global online venue for young mathematicians which can easily and instantly reach hundreds in the scientific community (in this case, in areas loosely connected to Poisson geometry). We thought it was extremely important to give our young colleagues the necessary space and platform to advertise their work, their ideas, and their ambition and vision. Especially, we felt such events would benefit those who are currently on the job market looking for their first or second postdoc position. This, we thought, would be their chance to attract attention to their work.

The fact that our mathematical community has so quickly embraced the new reality of virtual conferencing was the ideal condition for JGPW to be as successful as it was. Thanks to our wonderful contacts around the world who helped us advertise the workshop as widely as possible, our participants came in numbers from all corners of the globe: all in all, we welcomed almost 300 participants who tuned in from 45 separate countries, spanning a total

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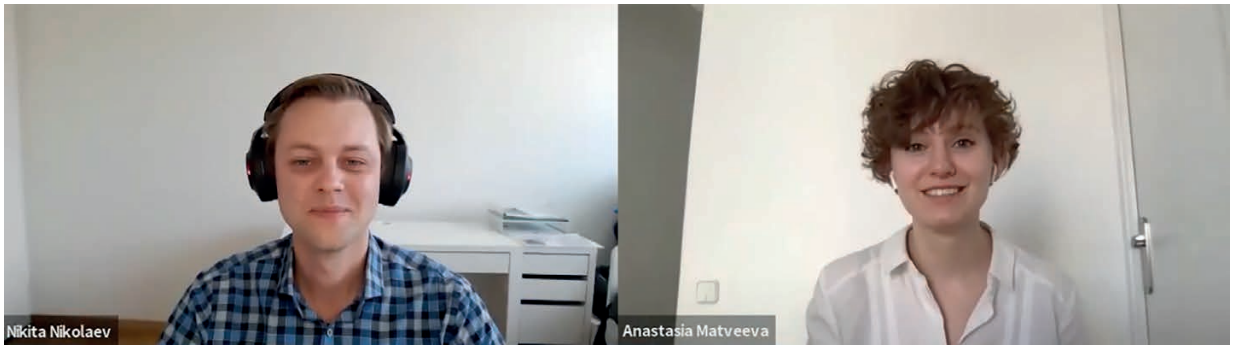

Nikita and Anastasia welcoming the participants on YouTube

of 14 different time zones, and representing every continent (except Antarctica: despite their piscivorous diet, sadly not a single penguin accepted our invitation). We were also delighted to see that our audience had a healthy mix of junior and senior researchers: nearly 1/3 of our participants were faculty members. Many senior researchers took a very active part in discussion sessions and even social events, causing the workshop to really bring together all generations of the Poisson geometry community whilst focusing on the achievements of some of its most junior members. Altogether, the scale and the scope that the event eventually attained was truly humbling for us, the organisers.

We pursued three main goals for each speaker. First, we wanted to give them an opportunity to give a short advertisement of their work, perhaps an overview of their problem or a brisk list of their main recent results, aimed more or less at a general member of the Poisson geometry community. Second, we also wanted to give each speaker an opportunity to explain aspects of their work in a lot more technical detail to the specialists in their respective areas. To achieve this, each speaker was asked to give one talk in two separate parts. The first part was a short uninterrupted formal presentation which was recorded and streamed live on YouTube (youtube.com/playlist?list=PLCzLB5TLzwFsineo36sCuxx1SOavHAqdn), which the speaker could later link to (for example, in a job application). The second part – which was neither recorded nor broadcast live – was an informal presentation in the style of a working group seminar, followed by a longer discussion; the idea was that this informal unrecorded setting would encourage more questions and more interaction from the participants.

The third goal – which from our point of view was perhaps the most important one – was to add to our workshop the social element which is often the root of new collaborations. We blocked out several time slots specifically dedicated to social activities, in order to let participants get acquainted and make new friends. The idea was not to simply recreate what usually happens at physical conferences, but rather to design activities adapted to the new virtual medium. We tried several different formats on a purely experimental basis, and obviously some were more successful than others. But amidst crashing into one another in Mario Kart, laughing together during Random Chats, and playing Codenames (which ultimately gained the title of the official JGPW board game!), we all had terrific fun getting to know each other.

Of course, not everything was perfect: there were emergencies and last minute changes, and altogether, as the conference went on, we realised pretty quickly that some things don't work as well as we thought they would, whilst others work better than expected. We learnt many lessons, and we will keep adjusting, trying new ideas, and fine-tuning to make future JGP workshops even more exciting, engaging, and valuable to the mathematical community. And so there is no better way to conclude this letter than to cordially invite you, our dear reader, to participate in the next *Junior Global Poisson Workshop 2021* in early May: for details, go to our conference webpage www.unige.ch/math/folks/nikolaev/JGPW2021.html. Join us to make friends and hear interesting maths!

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Finding paths in a totally disconnected space: Collaborating across universities

Imaginary Interviewer: Alfonso and Leo, last fall you started organizing an online seminar. It is called "Good morning SFARS". What does the name stand for?

Alfonso: Well II, do you mind if we call you II? I think it sounds pretty good! We named it SFARS which is an acronym for Singular Foliations And Related Structures and the "Good morning" indicates that, well, the seminar is in the mornings.

Leo: And we thought the name fits well with the informal style of the seminar, and the fact that we start the day by seeing our mathematical friends. Btw I also like the II abbreviation.

II: But the whole thing did not start out as a seminar. First there was a conference. How did that come into existence?

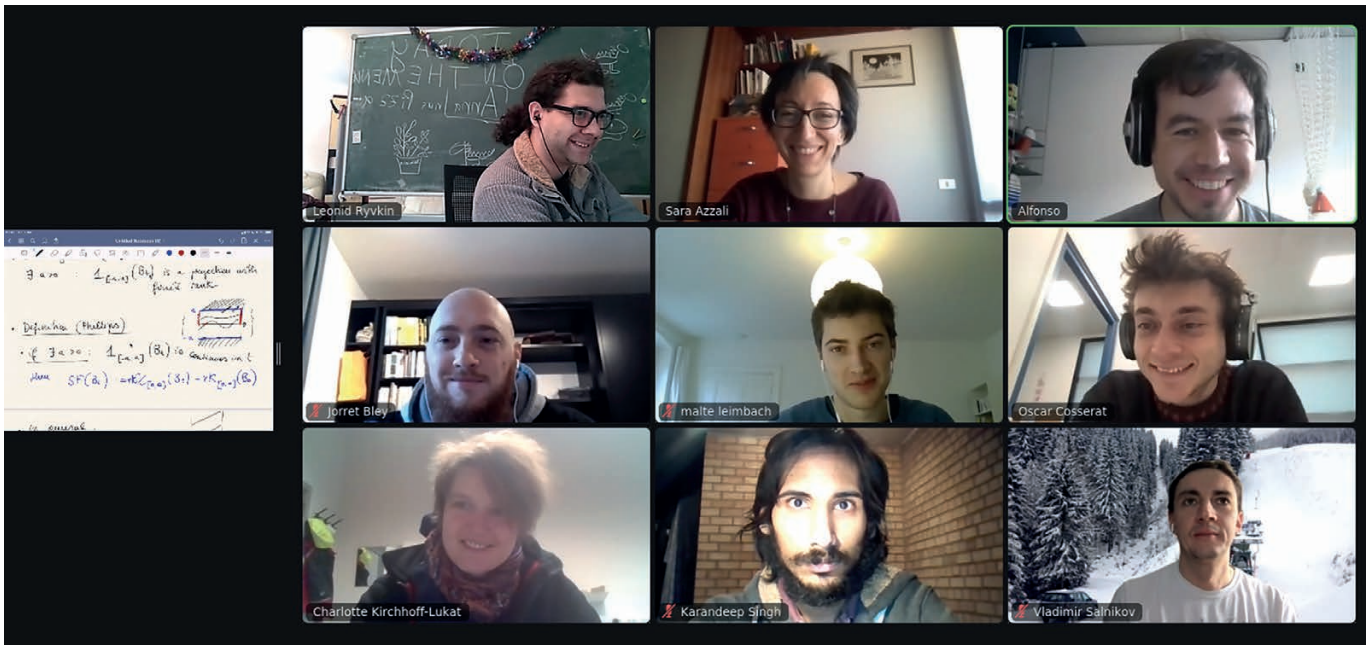
Alfonso: Yes, you are right! At the start of this global singularity, I was not sure if I was working too little or too much, but I was definitely not having enough personal interaction to release my stress. So I started trying many online tools to recreate some kind of social life, things like online games and communication software.

Leo: On the mathematical side, there were very few opportunities to talk to fellow (young) mathematicians. A friend had organized an online workshop on multisymplectic geometry and I really enjoyed it, so I thought it might be nice to organize a similar event around singular foliations. Hence, I wrote a message to Alfonso.

Alfonso: And that was a really good news for me! At the same time, I already attended some online conferences using Zoom, and wondered if I could use my gaming experience to improve the running of conferences. So I was thrilled by this challenge. Of course, I said "yes!" and we started planning.

II: So back to the seminar: What is it about?

Alfonso: The seminar it is about nothing in particular. Talks are often related to singular foliations because most of the participants work on that. Nevertheless, speakers select their own theme; they can talk about something they want to learn, or about a question they have. Just like informal everyday math conversations.



Some participants of the SFARS seminar. From top left to bottom right: Leonid Ryvkin, Sara Azzali, Alfonso Garmendia, Jorret Bley, Malte Leimbach, Oscar Cosserat, Charlotte Kirchhoff-Lukat, Karandeep Singh, Vladimir Salnikov.

II: What are the main motivations for participating in the seminar?

Leo: Of course, we have our own ideas about that, but to be sure of ourselves, we distributed a questionnaire among the participants. For most of us, it seems that the seminar is a way to have the "coffee-break" math discussions that we have been missing lately. The short and regular format made it easy to stay engaged, even for people with a busy schedule. And the social time before the talks helped to maintain a friendly environment and supported the informal style of the meetings. However, we admit that for many people it is quite difficult to attend a social activity that early in the morning …

II: How does the technical side of running the seminar work?

Alfonso: Well, we use Zoom for the actual meeting, and Discord as a chat server for written discussions, sharing slides and so forth. Of course, we would have preferred an open source alternative to Zoom, but most people were already accustomed to Zoom and we didn't want to lose participants by unnecessarily changing the setup. In Discord, there is a separate channel for each talk, an "announcements" channel, and a space for general discussions and potential future talk topics.

Leo: And about the talks, we originally decided that they should be short, around 20 minutes. Standing in front of a computer paying close attention for a long period of time is not exactly an appealing and relaxing activity. However, 20 minutes turned out to be a little too short to elaborate on the topics, so we will try 30 minutes next term.

II: What were your experiences with this format?

Alfonso: Having a permanent chat for each topic was very helpful. Sometimes questions or interesting ideas arise a few days after the talk, and they can still be discussed on the corresponding chat. Moreover, it is nice to have a "Journal" of the past topics. Our original idea was that we would decide on topics spontaneously as we went along. But this turned out to be difficult, given the weekly rhythm of the meetings. Now we keep a set of topics in reserve, which we work through if nothing else comes up.

Leo: On the social side, one of the most important aspects is keeping a warm and personal climate. For instance, the participants obviously change, and new ones need to be welcomed into the group. In offline events this happens more naturally, but online it takes a bit more effort.

II: That is a very understandable difficulty, but certainly an important one to overcome. I hope to hear about more initiatives of this sort soon. One last thing, do you want to leave a message to our readers out there?

Alfonso and Leo: (in duet) Hello Mom! I am on EMS!

Alfonso Garmendia and Leonid Ryvkin

Alfonso Garmendia is a Postdoc at the University of Potsdam. His interests lie in symplectic geometry and mathematical physics: Poisson geometry, singular foliation theory, Lie theory (groups, algebras, groupoids and algebroids), deformation quantization and applications in physics. Besides he spends his free time making bad jokes.

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