

Folk Festivals and Mathematics Conferences

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When I travel to a mathematics conference I try to tie it in with some interesting event in the same area. Last summer I was happy to be invited to the *13th Summer Meeting on Kurtovski Semi- α Modulators* at Xville University. The *Xville Folk Music Festival* ran just before the conference so it was natural to include it in my itinerary.

I'm not sure if you've been to one of these summer folk music festivals. The audience sits on tarps and blankets on the grass in front of a makeshift stage. Performers are given around 50 minutes for their show. Then there's ten minutes for the sound crew to get the stage ready for the next group.

The first act was Reeman and the Whalers. They were terrible. They began with *Part 13* of some song cycle on whaling they'd been working on for years. You had to know the previous songs to have any idea who the characters were or what the story was about. It would have been really helpful if they had taken a few minutes and given a plot synopsis of the earlier songs so we uninitiated could follow the current song. There were also a lot of words I didn't know; technical words about 19th century whaling ships (bulwarks?) and Latin names of whale anatomy. I knew what "baleen" was but "spermaceti"? Again, it would have been nice if they could have told us what these meant, either before or after their performance. When it was over the clapping was merely polite.

The next act was dreadful. It was a solo singer songwriter with acoustic guitar. She had a projection system that showed the words to her songs on a screen behind her. It was a good idea. We could follow the lyrics and sing along if we liked. But, it was

an impossibly complicated tune to sing along to. For some reason she kept turning her back to us and singing to the backdrop, as if she was reading the words off it. You couldn't hear a thing. My guess is she didn't know the words to her own song. That's fairly inept. To top it off, she went way over time. You could see the Stage Manager in the wings signalling her when she had five minutes left, when she was supposed to get off stage and then frantically jumping up and down trying to get her attention when she was ten minutes over time. It was funny but sad at the same time.

There was a half hour break, now reduced to 15 minutes, before the next singer. I just had time to grab a coffee and muffin and say hi to some old friends who I hadn't seen for a few years. When I was back at my seat I asked the people on either side of me what they thought of the event so far. They all said they liked it but no one could tell me what the whaling songs were about.

After the break was "Steady Eddy". I've seen him a number of times at these festivals. He always does the same one song, occasionally with a new chorus or some other minor change. I guess it's an okay song, but come on, the guy is supposed to be a professional song writer. Surely he could come up with something new. It was pretty boring hearing it again. The lyrics in the third verse are really awkward and don't fit the music. He always stumbles over this part. All it would take to fix the song is a minor change in the words but he never bothers. A lot of people were sleeping on their tarps or diddling with smart phones or laptops. I thought it was rude to Eddy not to pay attention but then they'd probably heard him fumble through this song many times before.

It took a long time to set up the next act. They had some electronic samples they were supposed to have sent in to the organizers long before the date of the festival.

Instead, they just gave their file to the sound guy as they were getting on stage. It was in some weird format no one could figure out. Once they finally got started, it was a disaster. It was clear the sound effects they had in their file were in the wrong order. They could have checked things out and practised before coming to the festival. One sample was supposed to be light birdsong but instead they got something that sounded like a steam train. It ruined the whole atmosphere of their piece. The guy next to me leaned over and whispered that exactly the same thing had happened the week before at a music festival in Zedville. When it was over, the audience clapped in a purely mechanical way.

Lunch was in the cafeteria of a nearby school. It was a rather tame affair. We sat at long Formica tables. The food was okay but nothing exciting. People talked quietly with their neighbours. After the rather dull morning everyone was pretty subdued. I didn't feel like going to the afternoon sessions. I was feeling a bit jet lagged so after lunch I went and slept for most of the afternoon. I met some people I know and we went out and had a nice dinner.

As it turned out, there were some genuinely great performances at the festival over the next few days by some truly talented musicians. But on the whole I have to say there were far too many duds like on that first morning.

After three days at the music festival I was more than ready to go to the semi- α modulators conference. It was a little more chaotic but a lot more fun. In the lecture hall at Xville University before the first talks began the whole room was buzzing with excitement and everyone was talking with everyone else. Several people in the audience were eagerly telling me that Professor So-and-So gave great talks and they had heard her speak at such-and-such conferences. Some of the mathematicians seemed

to have really devoted followers who had heard them at conferences all over the world. I was rather flattered when several people grouped around me, telling me they'd read all my papers, would I be presenting my proof of the Double K Conjecture, what was I talking about at this conference, etc., etc. At first the attention made me a bit nervous but then I reasoned that I'd prepared my talk really well so things should be fine. My talk was on the second day and was going to start with some fun results that everyone would be able to understand. For me, it's a bit boring to keep repeating, but the Double K Conjecture is the one thing that I'm at all famous for so of course I'd spend some time on it. People always enjoyed seeing the proof again. I'd worked out some really cool graphics to help with one part. Then I'd try to slip some new stuff in at the end.

Finally it was time to start. Instead of long-winded introductions by Deans who had nothing to do with the subject, the main organizer just got on stage and said "Let the fun begin". Rather than have everyone prove their results separately, they had what they called a "workshop". They collected five mathematicians who all worked in the same subfield. The first group worked in semi-stable β modulators. Three of them were pretty well-known and the other two looked like they were grad students or post docs. These five were on the podium at the same time. The moderator had everyone do a short proof. Since they only had a few minutes they had to do something concise that we could all grasp quickly. I can tell you, I got a lot more out of these morsels than I would have gotten out of a single 50 minute meandering talk. The two youngsters were pretty excited to be sharing the stage with these other famous mathematicians and they rose to the challenge and really put on good performances. After each of the five had done their own proof, they took turns leading the group in a new proof. The leader would say something like, "This one is based on the Höldoff inequality. It's pretty simple since the measure space is a quasi-modulator. You can

come in with other inequalities if you like.” They’d start the proof but others on stage pitched in at appropriate places with their own few lines of proof, maybe a bit of Jonker’s inequality or something like that. It worked really well. They all seemed charged by having to think on their feet rather than just reading some existing slides. In the end, the proof had a few rough spots but it was exhilarating to see mathematics in the making. Each of the five proofs they did as a group had the unmistakable stamp of the originator but there were flourishes and motifs that made it different from anything that person could have done on their own. The audience loved it. Our continued cheering and clapping even persuaded the monitor of the session to allow an encore.

The whole morning was taken up with these workshops. Most of them were really good. The vibe in the lecture hall was fantastic. The audience was so excited to be seeing their heroes putting on these great performances and that fed back onto the performers who were totally turned on and gave these amazing proofs. For lunch there was organic bean sprout salad and a Mexican tofu casserole. Very delicious. You could get different fresh squeezed juices at the juice bar. The lunch break was two hours long so I had time to go to the exhibit hall. I bought a Navajo rug. Professor Waring from Yville State University raises her own organic sheep and makes vegetable dyes from plants she picks in the Mojave Desert. It’s a really cool rug. I also got some rope sandals and a set of crystals. After that I joined a meditation group.

In the afternoon, some of the more famous mathematicians put on their own talks. I’m not sure if it was the continued vibe from the morning or the peyote I had but the afternoon talks were absolutely sky bird fantastic. We wrapped up the talks around five o’clock. The organizers had brewed their own beer and had some fabulous home

made wine. That made the poster session a real blast. We had dinner at a fire pit on the back campus. Some people had guitars and wooden flutes. I don't totally remember but I think there was a lot of dancing. I slept in my Navajo rug near the fire, curled up with a grad student from Qville.

The next morning when everyone came into the lecture hall they were all laughing, joking and hugging each other. After that incredible first day we felt like one big happy commune. I was the first speaker. I started off with some really easy examples of modulators that I figured everyone would understand. That worked well. Someone in the audience called out, "We're diggin' it!" so I figured they liked what I was doing. Then I gave a short version of the Double K Conjecture, leaving out the technical bits. There was spontaneous cheering. One of the women threw her bra onto the stage. As I reached for my glass of elderberry wine, I thought; man, these math conferences are groovy.