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CIMPA-UNESCO-MESR-MINECO-INDIA Research School
Fourier analysis of groups in combinatorics
North Eastern Hill University (NEHU)
Shillong, India
November 18-30

<http://www.cimpa-icpam.org/spip.php?article510>

http://math.univ-lille1.fr/~bhowmik/cimpa/CIMPA_Shillong.html

The CIMPA Research School in Shillong in 2013 started at the initiative of Gautami Bhowmik, who is originally from Shillong. She has long standing contacts and collaboration with the mathematicians from this university, and it is fitting that she organized such a research school.

The organization was very good, from the scientific point of view as well as from the local one. Initially, it was planned that the school would take place in the Department of Mathematics, but due to some renovation works, it was moved to the building of ICSSR-NERC (Indian Council of Social Science Research, North-East Regional Centre), which turned out to be more convenient, very close to the Guest House where all the non local participants were accommodated. The internet connection in the hall of the guest house was reasonably fast, and there were not too many break down. In this region of North East India (Meghalaya), there is so far no agreement with foreign providers for cell phones. The room of the lectures, which was used also for the opening ceremony, had the right size and the necessary equipment, for green board lectures as well as for beamer presentations. In fact, most courses were given with the green board, which is more suitable for courses. The meals (at the guest house for breakfast and dinner, at the conference center for lunch and tea breaks) were taken together among lecturers and participants.

There were several open problems sessions as well as tutorials. The level of the participants was uneven, but in general, they already knew at least something on some of the topics and their reactions were positive. Some of

them were very enthusiastic about this school. The website in Lille hosted the notes of the courses that the participants could download; they were offered to get also had copy at the beginning of the two weeks and many of them selected this option.

The number of participants from India was roughly the expected one. During most of the courses, the number of people present in the room was above 30. However, unfortunately, there were only two foreign participants. Altogether, there were only 24 applications from candidates outside India, all of them were selected, including 18 with a financial support. Among them, 11 confirmed their participation. Among the 11 candidates who confirmed, three were from Pakistan, only one of them wrote to the organizers telling them that he did not get his visa. It is likely that this is the same for the two others from Pakistan. Hence, 6 applicants who were supported and confirmed they will come, finally did not come, without informing the organizers; this is not a good behavior. The two foreign participants who attended were Indonesian ladies who faced some difficulty at the border, when they expected to get a visa on arrival, but mentioned that they were coming to India for a conference: only tourist visa can be delivered on arrival for visitors from Indonesia. They were asked to go to Kuala Lumpur and bought air tickets, but thanks to the efficient and immediate action of Himadri Mukherjee, they did not need to leave Kolkata and got their visa on time for the start of the school.

There were three courses on Discrete Fourier Analysis, two on Graph Theory, two on Analytic Number Theory and one on Quantum Factorization as an example of an application. In general, the courses were prepared to be accessible to non-experts and most of the audience seemed to be satisfied at the end of the school. The lecturers were quite happy with the response that they received at the tutorials (one for every course).

During the week-end, an excursion was organized to Cherrapunjee, which is 60 kms away from Shillong. The conference provided a bus for the day trip. Those who stayed overnight for a trek to two of the Living Root Bridges paid for their expenses themselves and the arrangements were done non-officially by one of the organizers . The walks were a little difficult for the uninitiated but certainly a memorable experience for all.

On the 28th November, a dinner followed by a film on Meghalaya was organized, to which members of the faculty and their families were invited.

After the last talk certificates of participation were distributed.

Congratulations and thanks to Gautami Bhowmik and Himadri Murkherjee for the success of this school and for the excellent job they did.

Appendix: visits to the University of Manipur on November 14 and the University of Tezpur on November 15, 2013.

I arrived in India on November 12, the CIMPA Research School started only on November 18. I took this opportunity to visit the French Embassy on November 13, the University of Manipur on November 14 and the University of Tezpur on November 15. In each of these two universities I gave a lecture on the *abc* Conjecture and each time more than 70 students attended my talk and asked a number of questions. My visit to Manipur University was organized at the initiative of Shanta Laishram (IIT Delhi). I was received by M. Ranjit Singh. It was one of the shortest visit of mine so far to a University, since I reached Imphal airport at 9:30 am coming from Delhi, and I left Imphal airport the same afternoon at 3:30 pm for Guwahati. My visit of Tezpur University originated from my meetings, first with Manjil Pratim Saikia, then with Nayandeep Deka Baruah, during the International Conference on the Legacy of Ramanujan in December 2012. Manjil received me at the Guwahati airport and accompanied me to Tezpur on November 14. In spite of the fact that November 15 was a religious holiday, the program took place as scheduled, with many students who participated. I am thankful to these colleagues for their warm welcome.

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