

ELAVIO XXII

March 04 – 09, 2018
Marbella Resort, Chile

First of all, I would like to thank GOR, EURO and IFORS for the opportunity to attend the summer school ELAVIO XXII in Chile this year. When I got the confirmation of the obtained scholarship, I was full of anticipation for this incredible experience.

ELAVIO is a summer school in operations research for young scientists (Master and PhD students) to promote international networking and to pass on knowledge on various topics in this subject. This year, it took place at Marbella Resort in Maitencillo which is located at the Chilean coast. The around 50 participants were from all over the world and got to know each other during the various courses, coffee breaks, poster sessions and social events. The networking and development of friendships with other scholars was further promoted by sharing an apartment. In my case, the other girls were from Peru, Mexico, Argentina and Chile and the mutual exchange of the cultural characteristics was very interesting. The professors were very approachable and shared their experiences in the academic world.

Between Monday and Thursday, four courses were scheduled each day and mainly hold in Spanish. However, since the slides were in English, it was not difficult to follow with an intermediate level of Spanish. When I did not understand single phrases or aspects, all the participants were very attentive in helping me. I always felt very welcome and integrated. The topics were both theoretical and practical. They were very diverse and thus helped to broaden one's horizon. More theoretical courses covered the following topics:

- Collaborative Logistics and Cooperative Game Theory
- Introduction to Extremal Graph Theory
- Polyhedral Techniques for Combinatorial Optimization Problems
- Models and Algorithms for Public Transportation Network Design
- Empirical Methods in Management Science
- Complexity-Separating Graph Classes for Vertex, Edge and Total Colouring

Particularly the topic on collaborative logistics was very close to my research area and stimulated new ideas for future research. Other courses focused on problems resulting from real-world applications:

- Applications of OR to Real Problems in Argentina and Chile over the last 15 years

- OR in Agriculture: Pitfalls and Critical Success Factors

It was very interesting to learn about the requirements encountered in practice and how these were taken into account in the problem solution. With the approaching world championship in mind, I enjoyed especially the talk about optimal scheduling of football leagues.

Subsequently, from 8pm – 9pm, the poster sessions took place. Every participant had the chance to present his research and to get an insight into the other participants' research domains. The intimate atmosphere allowed for a deep discussion on future research directions. Many interesting questions have been asked which stimulated new ways of thinking.

The evening came to a close over a tasty buffet which varied each day and over some socializing activities such as playing UNO or discussing differences in language between Latin American countries over a glass of wine. On Thursday evening, a nice Karaoke event has been organized with lots of singing Spanish songs, dancing and connecting. I also enjoyed very much the closing activity in which questions on the courses were asked within a game of "Who wants to be a Millionaire?" – It was both challenging and a lot of fun!

In summary, the week was an amazing experience and I recommend ELAVIO to all young people researching in operations research. It is a great possibility to develop new networks as I believe that both the academic and social activities bound us together. In addition, ELAVIO allowed for a look over the edge of the own research domain which can be useful in future research. At this point, I want to thank Jaime Miranda, Karla Jaramillo and all members of the team for organizing the summer school. I wish all the best to the other participants of ELAVIO and hope we will see us soon in other academic events.

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