

ELAVIO 2017: a personal report

February 24 — March 04
Buenos Aires and Miramar, Argentina

First of all, I wish to express my enormous gratitude to EURO and ALIO for providing me with a scholarship to attend the 21st edition of the *Escuela Latinoamericana de Verano de Investigación Operativa* (ELAVIO 2017). It proved to be a unique, enriching and unforgettable experience.

ELAVIO is an annual event that gathers together young operational researchers from different countries and consists of courses given by specialists in the field together with fun social activities. The combination of these two elements results in a very friendly environment, perfect for professional networking and the establishment of future research opportunities.

ELAVIO 2017 was divided into two distinct geographic areas. The opening took place at the University of Buenos Aires on Friday, February 24th and consisted of four talks which set the overall tone of the summer school: applications concerning industry and sports, integer programming and graph theory. The first day ended with a poster section, during which it was possible to identify the primary research interests of each participant. Saturday was a day off, devoted to sight seeing in Buenos Aires, while on Sunday we travelled 470km towards the enchanting city of Miramar, where the courses and tutorials were held during the following week.

The event was very well organized and its schedule structured to maximize social contact among the participants. Each day in Miramar included 6 hours of courses or tutorials, distributed across mornings and evenings. Afternoons, between the hours of 14.00 and 17.00, were free. Accommodation was offered at the Alto Miramar Resort & Spa, where I shared a two-room apartment with an Argentinian, a French and a Chilean student. The hotel's great infra-structure, combined with the interesting courses and enjoyable social activities, helped the long days (where courses ran on until 20.45) go by very quickly. The social activities were carefully planned, one of which, my favorite, included riding quad bikes in the sand dunes near Miramar.

The majority of the courses were lectured in Spanish and six different topics were covered during approximately 30 hours:

- applications of operations research and statistics to sports analytics;
- integer programming models for planning and operation of public transit systems;
- convergence and complexity in nonlinear optimization;
- intersection graphs and perfect graphs;
- mathematical formulations for integer programming problems;
- molecular distance geometry problem: concepts, algorithms and computational complexity.

In summary: I absolutely recommend ELAVIO to all young researches who have the opportunity to attend it, both from an academic and a personal perspective. Carefully-selected, experienced researches offer high quality courses and tutorials. The social activities helps in creating a friendly and diverse environment, perfect for developing new networks for future collaborations.

Túlio A. M. Toffolo
PhD Candidate — KU Leuven, Belgium
Department of Computer Science, CODES & imec-ITEC
tulio.toffolo@kuleuven.be