

## Report on EMALCA-ECUADOR 2017

### Structure of the School:

The school was a satellite event of the Congreso Latinoamericano de Algebra (CLA) that took place at the Pontificia Universidad Católica del Ecuador (PUCE) in Quito on the same dates. The most relevant aspects of the school are the following.

### Main courses:

Two courses, each lasting seven hours, given by outside professors Moira Chas (Stony Brook, U.S.) and Angélica Osorno (Reed College, U.S.). Mini-course One course lasting four hours given by USFQ professor John Skukalek. Exercises The first part of the afternoons were reserved for working on exercising in groups with the help of the professors and organizers. Groups were assigned for the exercise sessions with the objective of maximizing diversity among members in terms of home institution and mathematical level, seeking to foster communication among participants.

### Evaluation:

The second part of the afternoons were used for the presentation of the solutions of the exercises to the rest of the attendees. This was the means by which the students were evaluated. In order to pass the evaluation, students were required to attend all the exercise sessions and present at least one exercise during the evaluation sessions. Unfortunately it was not possible to organize a joint day with the CLA due to logistical restrictions.

### The schedule was as follows:

#### Monday

800 - 830 Registration

830 - 915 Welcome

930 - 1030 Osorno

1030 - 1100 Coffee break

1100 -1300 Chas

1300 - 1430 Lunch

1430 - 1530 Skukalek

1530 - 1600 Coffee break

1600 - 1730 Exercises ChasOsorno

#### Tuesday

830 – 930 Chas

930 - 1030 Skukalek

1030 - 1100 Coffee break

1100 –1200 Osorno

1200 - 1800 Excursion

1900 Dinner

Wednesday

830 - 1030 Skukalek

1030 - 1100 Coffee break

1100 - 1200 Chas

1200 - 1300 Information about scholarships and higher education

1300 - 1430 Lunch

1430 - 1600 Exercises Skukalek

1600 - 1630 Coffee break

1630 - 1730 Evaluation Skukalek

Thursday

830 - 1030 Chas

1030 - 1100 Coffee break

1100 - 1300 Osorno

1300 - 1430 Lunch

1430 - 1600 Exercises Osorno

1600 - 1630 Coffee break

1630 - 1730 Evaluation Osorno

Friday

830 - 1030 Osorno

1030 - 1100 Coffee break

1100 - 1300 Chas

1300 - 1430 Lunch

1430 - 1600 Exercises Chas

1600 - 1630 Coffee break

1630 - 1730 Evaluation Chas Courses

Computer Driven Questions and Theorems in Geometry Dr. Moira Chas, Stony Brook University  
Exercises assistant Daniel Lütgehetmann, Freie Universität Berlin An Invitation to Homotopy Theory Dr. Angelica Osorno, Reed College Exercises assistant Dr. Marc Stephan, University of British Columbia  
Introduction to Noncommutative Topology Dr. John Skukalek, Universidad San Francisco de Quito  
Exercises assistant Dr. Bernardo Uribe, Universidad del Norte, Colombia. Scientific Material The school produced course notes in Spanish and available in electronic format. The notes were available before the start of the school and can be found on the school webpage in the courses section. The possibility of publishing the printed notes is currently being considered. Level of the courses and academic evaluation The courses were appropriate for the levels of the participants. The selection of the topics of the courses helped ensure this, being not so far apart from one another so as to support one another, especially the courses of Chas and Osorno. All the students that attended the exercise sessions also attended the evaluation sessions and passed the EMALCA school in its entirety. There were not any students that only partially passed the school. However, there were students that only attended the classes and not the exercise sessions, mostly for personal or practical reasons. All the students that attended the exercise and evaluations sessions presented at least one problem during the evaluations sessions. The presentations were satisfactory for the professors and exercise assistants. Evaluation of EMALCA In addition to the evaluation of the students, a survey was done at the end of the school in order to

evaluate it. In general, the students evaluated the school, its organization, and the level of the courses in a positive manner.

Publishing allowed true