

ICPC Latin America Championship

Rules of Promotion

This document defines the rules to promote teams from the ICPC Latin America Regional Contest to the ICPC Latin America Championship and from that contest to the ICPC World Finals.

Guiding principles

The following guiding principles were considered:

- Performance of the teams.
- Geographic representation.
- Level of participation in the regions: number of different schools.

Super Region

The ICPC Latin America Super Region comprehends the following six regions:

- Brazil
- Caribbean
- Central America
- Mexico
- South America / North
- South America / South

Regional contest

The Regional Contest maintains the format used in the previous years:

- It is distributed across the regions.
- It occurs at a common date and time (synchronized).
- Participant teams at each site receive the same problem set.
- Computers must use the official version of Maratona Linux as their operating system.
- Judging is centralized through BOCA.
- Results are aggregated at three levels: super-region, region, and country.

Promotion to the Championship

General rule: A maximum of two teams from the same school can be promoted to the Championship.

Let N be the number of teams to be promoted to the Championship (40-60), always an even number.

1. $N/2$ slots should be allocated to the teams with the best performance in the Regional Contest, considering the General Rule.
2. Countries that do not yet have classified teams receive a slot. That slot is assigned to the team with the best performance in each country, but only if that team solved at least one problem in the Regional Contest. Otherwise, that country should not have any slots.
3. If any of the schools hosting the Championship do not have a promoted team, a slot should be awarded to the best-performing team among the unpromoted schools.
4. The remaining slots should be assigned to regions using the algorithm on the next page. Each time a region receives a slot, it should be assigned to the best-performing team in that region, considering the General Rule.

Promotion to the World Finals

Let " N_{WF} " be the number of slots for the World Finals assigned to Latin America. Considering the results in the Championship:

1. The champion of each of the six regions receives a slot.
2. The remaining slots are assigned to the $N_{WF} - 6$ teams with the best overall performance.

Only one team from a given institution may advance to the World Finals. Airfare to the World Finals will be covered for the contestants of the promoted teams.

Latin America Champion

The team with the best performance in the Championship will be declared Latin America Champion.

Unforeseen cases

Unforeseen cases not considered in these rules shall be resolved by the Latin America Steering Committee, composed of the Regional Contest Directors of the six regions and the Latin America Director of Contests.

Algorithm to assign the remaining slots

1. Let:

- 1.1. "nSchools_Latam" be the total number of schools participating in the regionals,
- 1.2. "nSchools_R" be the number of schools from region R,
- 1.3. "allocated" be the number of slots already assigned,
- 1.4. "allocated_R" be the number of slots already assigned to region R,
- 1.5. "fractions_R" be the region fractions carried from the previous year. In the first year, it is initialized to 0 for each region.

2. Compute:

- 2.1. $\text{slotsRatio} = \text{nSchoolsLatam} / (\text{N} - \text{allocated})$.
- 2.2. For each region R:
 - 2.2.1. $\text{nslots_R} = \text{trunc}(\text{nSchools_R} / \text{slotsRatio})$.
 - 2.2.2. Assign nslots_R slots to region R.
 - 2.2.3. $\text{allocated} = \text{allocated} + \text{nslots_R}$.
 - 2.2.4. $\text{allocated_R} = \text{allocated_R} + \text{nslots_R}$.
 - 2.2.5. Add $(\text{nSchools_R} / \text{slotsRatio}) - \text{trunc}(\text{nSchools_R} / \text{slotsRatio})$ to fractions_R .

3. while allocated < N:

- 3.1. Assign a slot to the region with the highest fractions_R .
- 3.2. $\text{allocated} = \text{allocated} + 1$.
- 3.3. $\text{allocated_R} = \text{allocated_R} + 1$.
- 3.4. $\text{fractions_R} = 0$

4. In the case of a tie at 3.1, all tied regions receive a slot, resulting in a total number of slots greater than N if that occurs in the last iteration of 3.

5. Fractions greater than zero should be carried over to the next year.