IEPC Student Summer Competition (SSC) Orientation

Summer 2021

Outline

- Introduction

- Structure

  - Mechanics

  - Evaluation Procedure

  - Selection

- Summary

Overarching Goals

COVID-19 prevents in-person IEPC in 2021
→ *Graduate students should not have to
miss a year of professional development*

- Provide opportunity for students to showcase work across IEPC community

- Forum for IEPC community to track ongoing research progress in academia

- Chance for presentation feedback from other EP students and IEPC professionals

Virtual Challenges / Opportunities

- Zoom (remote) interactions are less engaging than in-person interactions

  - Competition structure incentivizes students beyond traditional conference-based professional development opportunity

  - Increased value to participating students - commitment from organizers and judges to provide feedback to students

  - Playoff structure should lead to higher interest in final round from larger IEPC community – we want maximum participation

- RC judges have very limited timeslots to volunteer

  - Geographically-aligned rounds permits more flexible scheduling

  - Realtime presentations are much more compelling and challenging than pre-recorded presentations
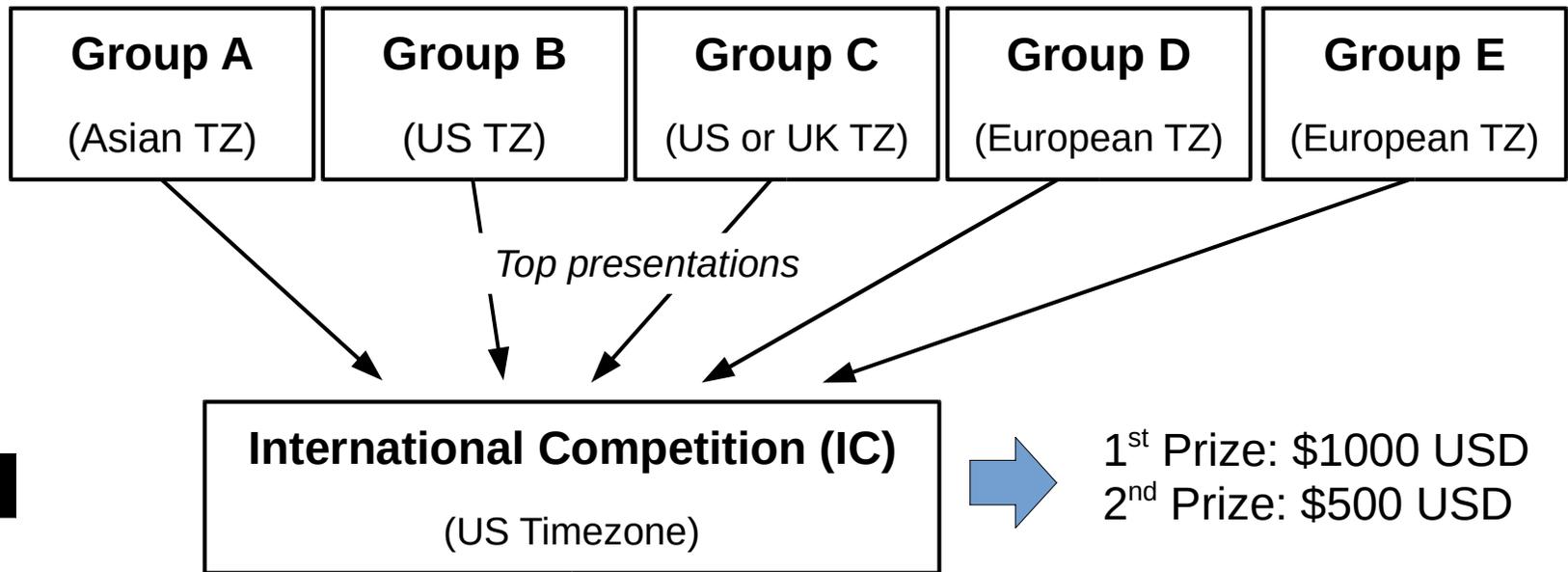
Overview

Very short technical presentations (between 13 min-RC and 15 min-IC)
- Evaluation criteria balances research and communications
- RC evaluation conducted by both judges and students
- IC evaluation conducted by ERPS board

Round 1

Regional Competitions (RC) – 12 presentations in each Group
- Date still TBD, but either July 2/9/16 in local timezone

Group A (Asian TZ)	**Group B** (US TZ)	**Group C** (US or UK TZ)	**Group D** (European TZ)	**Group E** (European TZ)

Top presentations

Round 2

International Competition (IC) (US Timezone)

→ 1st Prize: $1000 USD
2nd Prize: $500 USD

6 presentations in International Round
- Date still TBD, but week of July 25

Evaluation Criteria - Overview

2021 IEPC Summer Student Competition (SSC) Presentation Evaluation Criteria

Presenter:_____

Feedback:

SUGGESTED FEEDBACK TOPICS FOR TECHNICAL QUALITY:
- Is this work innovative? How different is it from what has been done before?
- Will this work have a meaningful impact on some aspect of EP?
- Are the technical conclusions adequately supported and aligned to the data presented?

The technical quality of this this work: (circle one)

5	Outstanding	Is worthy of someday being in a textbook
4	Very Good	Is destined for a top-flight Journal
3	Good	Is potentially Journal worthy
2	Average	Reminds me of my own conference papers
1	Poor	is not ready for a conference paper

Feedback:

SUGGESTED FEEDBACK TOPICS FOR COMMUNICATIONS:
- Are the written aspects of the presentation (graphics / video / text / equations) appropriate?
- Is the verbal component engaging? Too fast? Too slow?
- Are key points of presentation (motivation, key contributions, conclusions) clearly identified?
- Is the level of explanation appropriate for an IEPC audience?

From a communications perspective, this presentation: (circle one)

5	Outstanding	Complete mastery of technical presentation
4	Very Good	Well-presented and mostly clear
3	Good	Additional clarity needed in several areas
2	Average	Additional clarity needed in most areas
1	Poor	Presentation lacked clarity

Note: Feedback will be collated and provided to Presenter; Rankings will not be provided to Presenter.

- Feedbacks will be collated and provided back to each RC participant. ***This is incredibly valuable and we are very interested in the actual value of this feedback to the participants.***

- Scoring equally weighted between Technical Quality and Communications

  - Each evaluation will result in a score between 2 and 10

  - Final score is simple average over all judge/student evals

Note: We will probably have a google form to streamline data entry – TBD.

Presentation Tips

- Very short presentations driven by time commitments

  - 13 min uninterrupted presentation (hard cutoff) / 2 min Q&A from judges & transition

  - Practice, practice, practice to make sure you make timing

- Remember that your target audience is IEPC community

  - Spans industry/gov't/academia from around world

  - Diverse expertise from plasma physics to systems integration

- Unfortunately, always a chance for technical difficulties

  - Upload slides early and be prepared to brief via audio if datastream does not support video

Roles and Responsibilities

- RC Judges are unpaid volunteers from the professional IEPC community

  - RC Judges will be evaluating all 12 presentations in their respective Groups

- Every presenter has a responsibility to evaluate their peers

  - Each student will be assigned to evaluate 3-4 presentations within their Group

  - If students don't turn in evaluations, they will not be eligible to advance to IC

- Feedbacks should be professional and honest

  - It takes significant effort to provide high quality feedback

- Scores will not be released back to Presenters

  - They are used only for invitations to IC Round

Invitation to IC Round

- Highest evaluation score from each Group gets an invitation to IC

  - If competitor cannot accept, invitation moves to next highest score within the same Group

- After these 5 invitations are accepted, the 1 runner-up invitation will be based on a minimum proximity formula applied within each group. Let x_i represent individual score, x_{hi} represent highest score in group, *N* represent number of papers in the group:

$$P_i = \frac{x_{hi} - x_i}{\sum_N x_{hi} - x_i}$$

Mechanics of IC Round

- IC format is slightly longer

  - 15 min presentation / 5 minute Q&A & transition

- IC judging will be by ERPS board alone and no explicit feedback will be provided to the participants

  - Winner will be announced live after short deliberation

A grand experiment for IEPC

- The proposed SSC structure represents an exciting new experiment to address a number of questions

  - Will independent, distributed evaluation across many unbiased evaluators actually lead to optimal outcome within each RC Group?

  - Was group assignment of competitors via geographical proximity an acceptable compromise?

  - Is the Internet stable enough to support realtime competition?

  - Does the feedback from the RC evaluations justify the effort in putting together the SSC?

  - Will an International Round capture the attention of a large fraction of the IEPC community?

Spread the word and provide honest feedback
→ this could be the start of a new tradition