Mechanism Design Contest Upates

Facilitators: Mutembesa Daniel and Eric Sodomka

Data Science Africa 2019 - Addis Ababa, Ethiopia

Contest Goals

- Help you **identify mechanism design problems** in the real world.

- Help you **communicate relevant details** of the problem to mechanism design researchers.

- Provide ways for you to receive feedback and improve expertise through **collaborations with experts** in mechanism design.

Schedule of Talks

Event	Title	Speaker(s)	Addis Time	California Time
DSA Summer School	Introduction to Mechanism Design	Daniel Mutembesa	Mon June 3, 9:30AM-10:30AM	Sun June 2, 11:30PM-12:30AM
DSA Summer School	Identifying Real-World Problems in Mechanism Design	Daniel Mutembesa / Emmanuel Ozi-Yusuf	Mon June 3, 11AM-12PM	Mon June 3, 1AM-2AM
Markektplace Innovation Workshop	Democratizing Mechanism Design Education and Research in Sub-Saharan Africa	Eric Sodomka	Wed June 5, 7:30PM-8PM	June 5, 9:30AM-10AM
DSA Workshop	Keynote 6: Mechanism Design for Social Good	Eric Sodomka	Fri June 7, 11:30AM-12PM	Fri June 7, 1:30AM-2AM

Upcoming talk at Stanford: Pitch the best project proposals to mechanism design experts, ask them for guidance

Recall: Mini-Contest #1

Slide from yesterday:

- Prize: **3 winners, each of 1000 Ethiopian Birr** (~$35).

- Submission Deadline: **Today at ~12PM** (the **end of this session**)

- Task: "Identify and pitch a **real-world mechanism design problem** that, if solved, would greatly benefit citizens of one or more countries in **Africa**."

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- Task: "Identify and pitch a **real-world mechanism design problem** that, if solved, would greatly benefit citizens of one or more countries in **Africa**."

Extended deadline (due to connectivity issues).
Contest #1 is now closed.

Contest #1 Submissions

Author Name	Domain	Problem Pitch
Abdurahman Fetulhak	Health	Improve data collection for diagnosing **tuburculosis** via machine learning
Girum Moges	Science	Improve representation of **technical experts in Africa** (e.g., data scientists)
Ashenafi Fasil	Other (Recruitment)	Improve government's **matching workers to jobs in Ethiopia** (beyond random allocation)
Betty Okumu	Agriculture	Improve ability for **farmers in Kenya** to get quality seeds
Faith Okong'o	Housing	Improve **Ethiopian government's housing allocation** (beyond random allocation)
Deressa Wodajo	Microfinance	**Women microfinance loan allocation** program: How to fairly allocate funds?
Abebaw Eshetu	Infrastructure and Safety	Improve **Kenyan government's housing allocation** (beyond random allocation)
Kidane Woldemariyam	Donation	Improve fairness in **NGO resource allocation**
Getahun Metaferia	Agriculture	Ensure **vegetable farmers in Ethiopia** can connect with buyers
Endris Mohammed Ali	Transportation and Mobility	Reduce the amount of **traffic accidents in Ethiopia**

Contest #1 Finalists

Author Name	Domain	EVERYBODY WINS Problem Pitch
Abdurahman Fetulhak	Health	Improve data collection for diagnosing **tuburculosis** via machine learning
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Contest #1 Finalists

- All submissions were compelling. Well done!

- **Prize for finalists (previously unannounced):** one-year membership to SIGecom ($5-10 value). Main benefits: (1) access to mechanism design publications on ACM digital library; (2) registration discounts at mechanism design conferences. To redeem, see Eric on Friday.

- All authors have received feedback to improve their submissions

Contest #1 Winners

3 winners, each of 1000 Ethiopian Birr (~$35)

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Details coming soon!

Mini-Contest #2

Recall: Mini-Contest #2

Slide from yesterday:

- Prize: Up to **5 winners**, each of **3000 Ethiopian Birr (~$105)**.

- Submission Deadline: ~~**Tomorrow (Tuesday) at 16:30**~~.
  Wednesday 8:30 AM (Addis Ababa time)

- Same "problem description" form: https://bit.ly/2Mt8H7q

Extended deadline (due to connectivity issues).

Next Step:
Contest #3 (a big one)

Overview of Contests

Contest	Total Prize Money	Total Number of Winners	Who is Eligible
#1 (complete)	3000 Ethiopian Birr (~$105)	3	DSA19Addis attendees in MD@DSA Facebook group
#2 (active)	15000 Ethiopian Birr (~$515)	5	Same as above
#3 (active)	**$2500** (~72688 Ethiopian Birr)	**Everyone who contributes** (paid according to their contributions)	Same as above, *plus* anyone connected to that group via a **chain of referrals**

Contest #3

- Objective: **Improve the existing problem pitches** from the previous contests. (Only in exceptional circumstances will a brand new pitch be considered.)

- Deadline: **Rolling/to-be-determined**, with earlier submissions valued more than later ones. **Critical date on Wednesday, June 5th** (see below).

- Prizes:

  - A **prize of $2500** will be split across all contributors, based on the value of contributions (as determined by a selection committee).

  - On **Wednesday, June 5th at 7:30 PM**, Eric will present the best submissions thus far at the Marketplace Innovation Workshop, to **recruit mechanism design experts to guide you in solving these problems**.

How to Improve Project Pitches

- To see the current state of project pitches, navigate to the Google Doc: https://bit.ly/2IkyZmW

- For each project, you can see (1) the latest version of the pitch, given all vetted submissions; (2) suggestions on how to improve the pitch.

- Use this information to decide where to contribute. If desired, you can use the MD@DSA Facebook Group for coordination.

Types of Contributions

- **Direct contributions:** Provide some information that is directly useful for the problem pitch.

- **Referrals:** Find someone in your extended network who can make a direct contribution.

Direct Contributions

- Submit **contacts** to help us either understand the problem or deploy a solution (e.g., someone from the agency running the current mechanism, someone who participated in the current mechanism).

- Submit **figures and statistics** (with a reference) that help us understand the problem or the benefits of a solution.

- Submit **data** to help us quantitatively understand the problem (e.g., point us to existing data sets for this or a related problem; create a new data set).

- Submit **stories** that help us qualitatively understand the problem (e.g., interview someone who participated in the current mechanism—or submit your own story if you participated; provide links to relevant images that make the problem seem more real to someone not from that area).

Referrals

- If you know someone who can improve a pitch, ask them to help!

- They do not have to be attending the workshop to be eligible for a prize—refer anyone.

- You can target specific individuals and contact them directly, or make a more general post. If you push out the information, **submit info about who you contacted**.

- Anyone not attending DSA 2019 Addis Abba should submit the name of the person that referred them to be eligible for a prize. That referring person must be attending DSA, or there must be a **chain of referrals** that lead back to someone attending DSA.

How to submit content

- To see the current state of each problem pitch, view the following Google Doc: https://bit.ly/2IkyZmW

- To submit a direct contribution or referral, click on the project's Google Form in the above Google Doc. (Each project has its own Google Form.)

  - In the form, fill in any content you have.

  - You will only be rewarded for your marginal contributions. There is no need to copy/paste what has already been said. **Submit only new or improved content.**

Questions?