

AAMAS 2021 Blue Sky Track notification for paper 19

AAMAS 2021 Blue Sky Track <aamas2021blueskytrack@easychair.org> To: Dengji Zhao <dengji.zhao@gmail.com> 25 January 2021 at 23:23

Dear Dengji Zhao,

We are delighted to inform you that your AAMAS-2021 Blue Sky Ideas Track submission entitled "Mechanism Design Powered by Social Interactions" (19) has been accepted for publication at the conference. Congratulations!

As every year, the reviewing process was thorough and highly selective. The program committee reviewed a total of 43 submissions. It accepted 12 of them, resulting in an acceptance rate of 28%.

Every submission was reviewed by at least three experts in the field. The initial reviews and your rebuttal (if you chose to submit one) were then discussed by those reviewers and the co-chairs.

You will find your final reviews both at the end of this message and on EasyChair. We hope that you will find the feedback received helpful and we ask you to carefully consider all of it when preparing the camera-ready copy of your paper. Keep in mind that, even if you disagree with some feedback or if a reviewer misunderstood part of your paper, this still is useful information that you can use to optimise the way you present your work.

The camera-ready copy of your paper will be due on 15 Fedruary 2021. You will receive instructions for how to submit it by 5 Fedruary 2021. The instructions for preparing your manuscript remain the same as those referred to in the Call for Papers, except that we ask you to replace the string "London, UK" on the first page by the string "Online". So you can start working on this already if you wish.

If you chose to submit supplementary material for review, then you should now de-anoymise and polish this material and make it publicly and permanently available (e.g., using a service such as Zenodo for code and data, or arXiv for additional proof details). We recommend that you include a reference to the supplementary material in the camera-ready version of your paper (listed as an item in your bibliography). The idea is that it should be possible for people to cite your supplementary material independently from and in addition to citing your paper.

As you know, the conference will be held as an online-only event. Many of the details, including the presentation format for your paper, still need to be settled over the coming months.

This year we are going to have separate registration fees for papers and people. For your paper to be published, you must register your paper and at least one of its authors by 1 March 2021. Due to the switch to the online format, we do not yet have full information on how this will work exactly, but we will inform you in good time.

We are looking forward to seeing you at AAMAS in May!

All the best,

Katia and Yves AAMAS-2021 Blue Sky Ideas Track Co-Chairs

EasyChair: https://easychair.org/conferences/?conf=aamas2021blueskytrac

SUBMISSION: 19 TITLE: Mechanism Design Powered by Social Interactions

------ REVIEW 1 ------

SUBMISSION: 19 TITLE: Mechanism Design Powered by Social Interactions AUTHORS: Dengji Zhao ------ Overall evaluation ------SCORE: 1 (weak accept) ----- TEXT:

The paper defines a new set of mechanism design problems (involving resource allocation, task collaboration, matching and voting) with open agent set in which the objective is truthful revelation together with the maximization of agents participating in the mechanism (via diffusion). The motivation comes from the prominence of social networks in current online applications of mechanism design.

I find the idea intriguing. However, I think the application of this idea is more compelling in some of the identified domains (in particular, resource allocation) while it is a lot less compelling in others (like matching and voting). It is not obvious to me why more agents participating in a mechanism is necessarily added value.

The paper is generally clear, although it contains a lot of typos which do hamper readability. I recommend the authors to carefully proof-read the paper.

Comments after rebuttal: I'd like to thank the authors for engaging with my comment about incentivizing participation in matching and voting settings.

------SUBMISSION: 19 TITLE: Mechanism Design Powered by Social Interactions AUTHORS: Dengji Zhao

----- Overall evaluation -----SCORE: 2 (accept) ----- TEXT:

The authors summarize a general research agenda on mechanism design on social networks, where the challenge is to incentivize socially desirable behaviors in a baseline interaction as well as to incentivize individuals to attract their neighbors in a social network to take part in the interaction.

- Relevance: The ideas proposed fit in research themes concerning Agents and Multiagent systems.

- Level of Blue Sky: I must confess that the general introduction was not particularly inspiring to me. I started to appreciate the value of this contribution with the presentation of the 4 particular settings. For resources and task allocation, the authors point several works that already address the research agenda the is being suggested. To be fair, in both domains, there are also some open challenges listed. It seems that the ideas proposed here are especially "visionary" in the context of matching and voting. In any case, after reading the details about the 4 domains of application, I enjoyed this blue-sky manuscript as 1) a contribution that synthesizes incentive mechanisms on social networks across domains; 2) a source of new challenges and research ideas on combining incentives in typical interactions with the challenge of incentivizing participation. Altogether, I believe that this is a fair blue-sky contribution.

- Background: The authors do a good job highlighting, for each specific domain of application (resources allocation, tasks, matching and voting), the works that already address part of the challenges proposed and the open questions that remain to be addressed. The manuscript presents, in my opinion, a nice combination between grounding on recent works/results and future research agenda.

- Impact: As the 4 settings of application reveal, advancements along what is proposed in this paper can have a broad impact in many sub-fields of multiagent systems. The research agenda is particularly relevant given the increasing focus on network interactions.

- Rigour: The paper is clearly written. The challenges proposed are not expressed formally, but relevant literature is pointed out (where resource allocation, tasks, matching and voting are formalized). I believe that the level of detail is sufficient to appreciate the value of the contribution and to inspire future works. I would be useful to provide examples of p_i for the 4 settings.

- Extra comments: From the abstract it was impossible, to me, to grasp the contribution of the paper. A central point of the proposal is to design diffusion mechanisms to attract participants through their social network connections. This should be mentioned from the onset, I believe.

- Some minor typos:

This is reasonable in the past because people have ... before they can -> people had ... before they could Reference [30] font

This have not been well -> This has solution cannot against false-name attacks -> solution cannot be robust against? if P2 competes the same house with P1 -> competes for

----- REVIEW 3 ------

SUBMISSION: 19 TITLE: Mechanism Design Powered by Social Interactions AUTHORS: Dengji Zhao

----- Overall evaluation ------SCORE: 2 (accept)

----- TEXT:

The authors consider mechanism design in the context of the internet and social networks, characterised by a *lack* of constraints of physical location - different to traditional

settings. A model is proposed which can be used to study various social choice functions in this domain, with approaches sketched to four different mechanisms (resource allocation,

task collaboration, matching, and voting). The work is well set-out, and provides significant scope for discussion and further exploration of the problem.