

Hyperloop Conference Paper and Presentation Guidelines

Hard Tech Fund
July 18th, 2020

Motivation

Hard Tech Fund is creating a research conference in a form similar to an academic symposium that takes in papers from top researchers around the world, serves as a place of discussion for these works, and helps further disseminate those works. It also seeks to maintain some of the major differences that separate hyperloop from other research areas, including its younger participation age due to a high number of undergraduate teams, its culmination in more practical experiments, and its feasibility as understood by varying government and business interests.

To ensure that the symposium's success, **the conference is broken up into two weekends**, with the first weekend focused on benchmarking with scaled down, easily realizable experiments and the second weekend focused on scalability and large scale hyperloop development. We aim to welcome proposals for both or either weekend, and require either **research papers** or **business whitepapers** in order for a team or individual to present their work and to lead a panel.

Research Paper Guidelines

A research paper must be submitted into either weekend 1 or weekend 2, with its topic clearly defined. Some topics could include:

Effects of hyperloop in society, including potential economic impacts and improvements or problems related to health

Track development, including sizing of tracks, methods of track creation, methods to ensure vacuum, etc.

Any aspects of pod development, including propulsion system design, braking system design, methods of conveyance (wheels, air bearings, magnetic levitation, etc.) and suspension methods



If your topic does not fit one of these three areas, please email info@hardtechfund.com with “New Topic for Conference” as the email subject and describe the topic you would like to submit in your email body.

The Hard Tech Fund is looking for all research papers to follow the [American Physics Society \(APS\) guidelines](#) for citations and for sections. We highly recommend you use the APS templates on [Overleaf](#) or [Onenote](#) to help with writing the paper and to help with citations. Please remember to place the names of all paper authors, your institution, and the organization within your institution you work for under the title of your paper. A full checklist of what we would be expecting from a paper submission can be found [here](#).

In order to keep papers easily accessible, we are capping maximum paper length at **10 pages**. This is to ensure that all papers are well defined and focused on better understanding one exacting technology, rather than all technologies at once. For this reason, we **do not advise** you to submit the entire development plan for a pod or for a track to this conference; rather, please pick an area of innovation that you are or your team is making substantial strides in.

Both theoretical and practical papers will be accepted for this symposium. However, if a theoretical work is being submitted, all methods must be cited. With regards to work that you or your team want to keep confidential, **please do not submit any work that you would like kept confidential**. We recommend that you cite licenses/patents/previous experience if you would like to keep work confidential, yet also do not have actual results to share, especially with regards to theoretical concepts.

Business Whitepapers

Business whitepapers submitted to the Hard Tech Fund conference can address any of the above goals identified as research ideas but also must address theoretical and practical aspects of business enterprise. These submissions will also be treated in a similarly non-confidential manner along with research topics; the major differences exist largely in format and methodological approach.

For business whitepapers, we are expecting fewer than 10 pages, but this is not a hard-cap if justifiable. At a minimum, whitepapers should include a background to the business concept, an introduction to the team, the business model proposed, and potential revenue sources for that business.



Day of Conference: Presentation Guidelines

In order to keep everyone engaged over the course of a conference with a multitude of participants, we will be allowing top teams in each research discipline to provide *lightning talks* only on their research work.

Each lightning talk session will consist of the following format:

- **5 minutes** provided for the talk itself, which should include the main conclusions and the unique methods used or to be used in the study
- **1 minute** provided after the talk to help transition quickly to the next talk and to allow audience members and judges to submit questions to the presenting team

As such, the maximum number of talks that will be selected per session is **10 talks**. However, being that this would be one of the first hyperloop research events, we will be encouraging teams who are not in the top 10 to submit 5 minute videos describing their work, which will be posted on the Hard Tech Fund YouTube channel and reshared on all Hard Tech Fund social media platforms in order to still provide the teams with ample feedback to their work.

Questions? Comments? Concerns?

Feel free to reach out to info@hardtechfund.com if you have any questions, comments, or concerns or to message Samarth Sandeep, Linda Huang, Kirk McGregor, or Blake Anneberg on the Hyper Co-Op Slack.

Our goal for this conference is to start treating hyperloop like the serious research endeavor that it is. If there is anything that we can do to make this more inclusive or have a better experience, please do not hesitate to let us know.

