

### **Manifesto**

## Pledge for sustainable research in theoretical computer scie

Human activity over the last decades has been changing our planet's climate by releasing greenhouse gases into the atmosphere. The Earth's atmosphere now contains about 410 ppm carbon dioxide (compared to 280 ppm in the 18th century)<sup>1,2</sup>. The resulting global warming is anticipated to cause considerable harm to human civilization throughout the 21<sup>st</sup> century and beyond, particularly if the concentration rises above 450 ppm<sup>3</sup>. To mitigate this, we must urgently reduce our carbon emissions. There are initiatives on many levels of international politics setting goals for this reduction<sup>4,5</sup>. For instance, the IPCC panel of the United Nations advocates a 45% reduction of carbon dioxide emissions by 2030 relative to 2010 levels, to limit global warming to 1.5°C<sup>6</sup>.

We, as researchers in Theoretical Computer Science, acknowledge that our activities also contribute to the problem, in particular by the greenhouse gas emissions caused by our travel.

We believe that our research community should aim for a significant reduction of carbon emissions and evolve towards more sus-

1 of 4 18/05/20, 21:27

tainable practices. We believe that this can be achieved while preserving the quality of our research.

As an objective, we commit ourselves to reducing our emission by at least 50% before 2030 relative to pre-2020 le

To that end, we, as

### individual researchers,

will explore all the possible ways to reduce our carbon footprint. This may involve changing our travel habits to more sustainable ones, changing our ways to collaborate and practicing remote co-working, changing our publication practices, or modifying our behavior in other helpful ways. We will do so while preserving the quality of our research.

To that end, we, as

## organizers of conferences and workshop

will explore the possible ways to reduce the carbon footprint of these events. This may involve keeping track of the carbon footprint of the event, and also encouraging sustainable travel, experimenting with remote participation, choosing more wisely location and scheduling, adapting local arrangements and logistics, discussing this issue and our progress at the conferences. We will do so

2 of 4

while striving to preserve the scientific quality and conviviality of the event, and its fairness with respect to all potential contributors and participants.

To that end, we, as

### research groups,

will explore the possible ways to reduce the carbon footprint induced by our research. This may involve keeping track of our carbon footprint, offering new ways to disseminate research, encouraging and promoting sustainable practices of our members, or modifying our organization in any ways that may be necessary.



#### References

- [1] en.wikipedia.org/wiki/Carbon\_dioxide\_in\_Earth\_atmosphere
- [2] www.co2.earth
- [3] www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5\_SYR\_FINAL\_SPM.pdf
- [4] www.un.org/management/news/un-secretariat-adopts-

3 of 4 18/05/20, 21:27

# climate-action-plan

[5] ec.europa.eu/clima/policies/strategies/2030\_en

[6] www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/

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Top

4 of 4