



EDBT/ICDT 2021 – Climate Change Session (Introduction)

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Télécom Paris

- **Recap** on climate change and academic conferences
- **Report** on last year's climate change session
- **Community discussion**
 - Featuring **Benjamin C. Pierce**, University of Pennsylvania and Clowdr CIC
- **Polls** (non-binding)

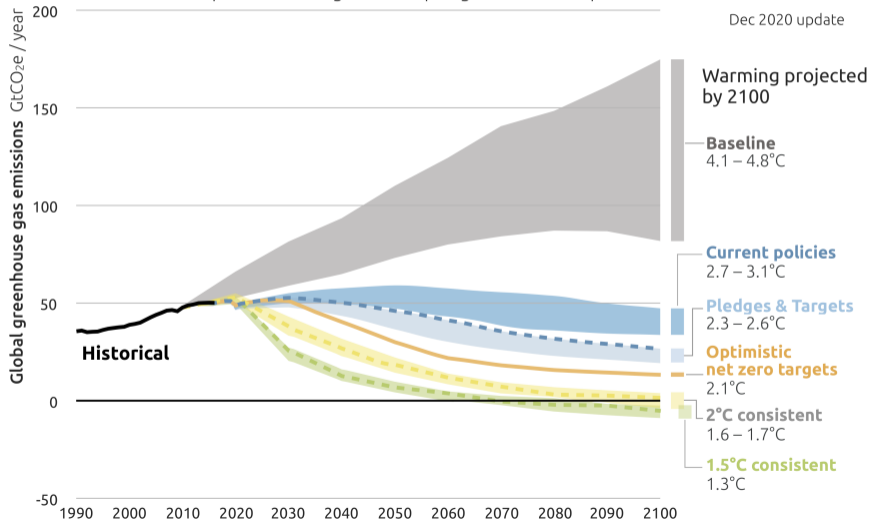
Reminder: Climate change

2100 WARMING PROJECTIONS

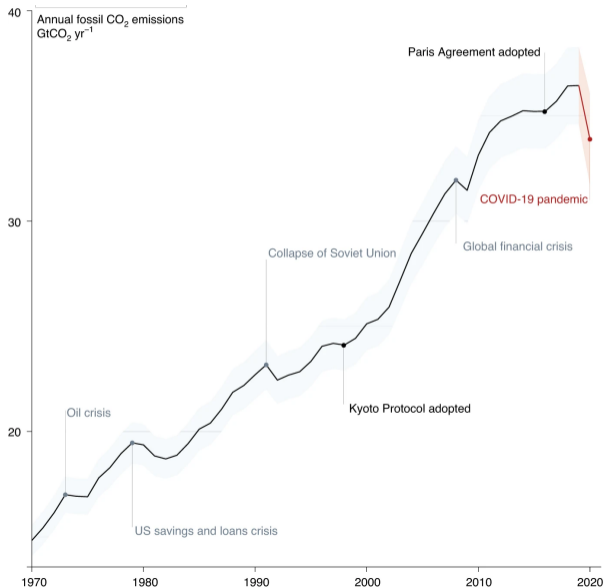
Emissions and expected warming based on pledges and current policies



Dec 2020 update



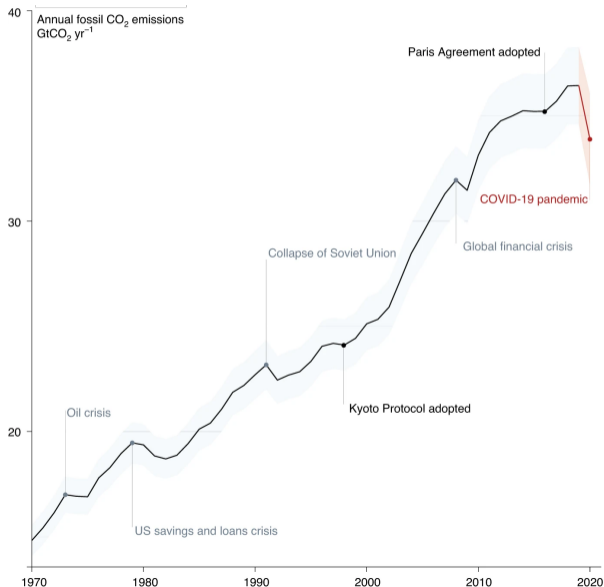
Did the pandemic slow down emissions?



- Pandemic impact **insignificant** on emissions compared to Paris agreement targets

Source: Le Quéré et al., *Fossil CO₂ emissions in the post-COVID-19 era*, Nature Climate Change

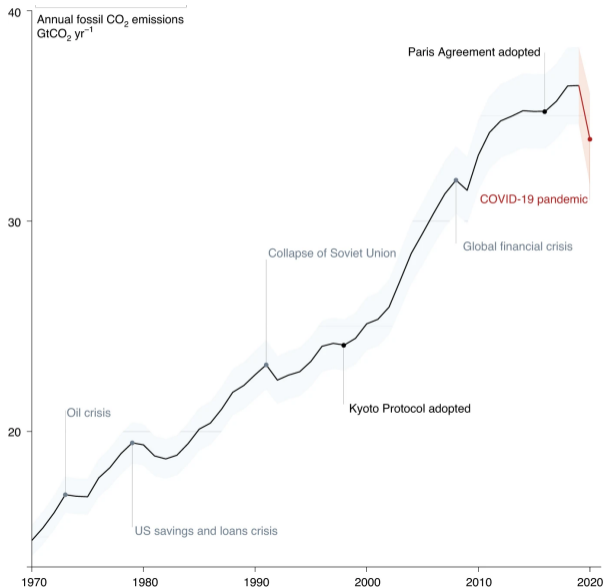
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- **Worse:** leaves less margin for climate action
- **Opportunity:** forces us to adjust our practices (e.g., conferences)

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What does climate change have to do with academia?

- Our **research** focuses on ICT which has a significant **carbon footprint** (2–4% of emissions, 8% by 2025)¹
 - Could we focus on **how** to address the climate crisis?

¹The Shift Project, Lean ICT – Towards Digital Sobriety, 2019

²Grant Faber, *A framework to estimate emissions from virtual conferences*, International Journal of Environmental studies

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 - Could we focus on **how** to address the climate crisis?
- **Most important:** our (pre-COVID) habits of **conference travel** are **unsustainable**
 - Online conferences pollute **>50 times less**² than in-person conferences
 - Online conferences have **other advantages**: cheaper, greater reach, more inclusive, etc.

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- **Satisfaction survey** answered by 114 participants (42% of registrants)
 - **72% of respondents** (vs 10% against) support a **hybrid conference**
 - **52% of respondents** (vs 26% against) support having the conference **alternatively in-person and online**

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- **Report** from the organizers of the climate session:
<https://tcs4f.org/climate-crisis-and-edbticdt>
containing **recommendations** (next)

Recommendation 1: commit to a goal (TCS4F manifesto)



tcs4f.org

- Idea: **commit to a goal** before agreeing on methods
- **IPCC goal:** reducing our emissions by **at least 50%** before 2030
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- (Disclaimer: I am a maintainer of TCS4F.)

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Note: You can sign as an individual researcher at <https://tcs4f.org/>

Recommendation 2: Changes to on-site conferences

When traveling to an on-site conference becomes possible again, we should:

- Measure the **CO2 footprint** of conference travel (at registration)
- Offer options to **offset** this footprint
- Otherwise **limit** the carbon footprint of the event itself (vegetarian food, etc.)

Recommendation 3: Hybrid conferences

Most important measure: **make it optional for authors to travel!**

Option 1: on-site + remote participation

An **on-site** conference but:

- Talks are **streamed** in high-quality
- Remote **Q&A**
- Can give talks **remotely**

Option 2: online conference + hubs

An **online** conference but:

- **Hubs** can apply to host a local community for the event
- Encourage **viewing parties**

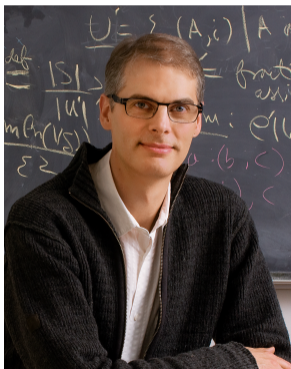
Big open question: **how can shared socializing work?**

Recommendation 4: Green research

- Hope: our community can **take inspiration** from climate-related problems
- At least, don't **encourage** unsustainable trends but **question** them
→ e.g., Bitcoin vs proof-of-stake...
- Idea: a **best green paper award**?

Let's discuss!

Goal: have an **open discussion** about how we feel about these issues



Outside guest: Benjamin Pierce, University of Pennsylvania and Clowdr CIC

Discussion!

Up to you!

- How much do you **miss** traditional conferences?
- Which **new opportunities** do you see with online conferences?
- What should be our **goals** in terms of carbon emissions?
- Should authors be **required** to travel to conferences?