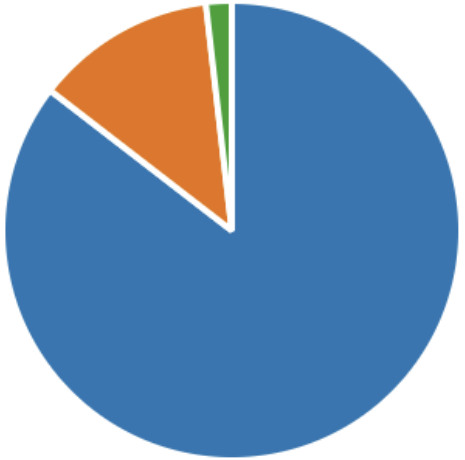
summing up…
who are you?

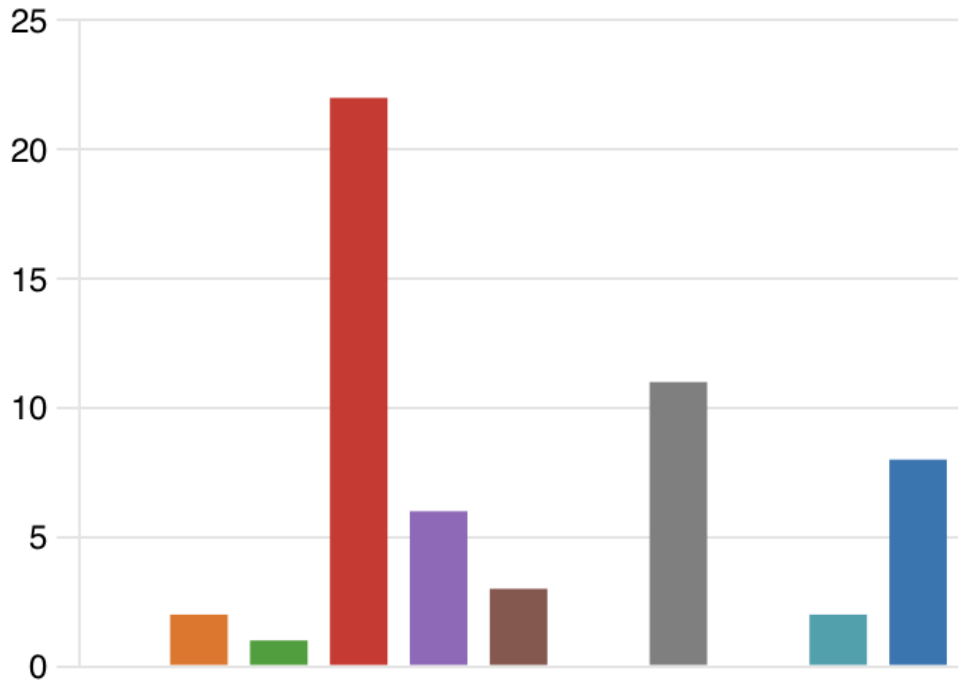
Academic position

Master's Student	47
PhD Student	7
Young Research	1
Altro	0



Curriculum

Astrophysics	0
Nuclear Physics	2
Subnuclear Physics	1
BioMedical Physics	22
Complex Systems	6
Theoretical Physics	3
Didactic Physics	0
Material Physics	11
GeoPhysics	0
Climate and Atmosphere	2
Computational Physics	8

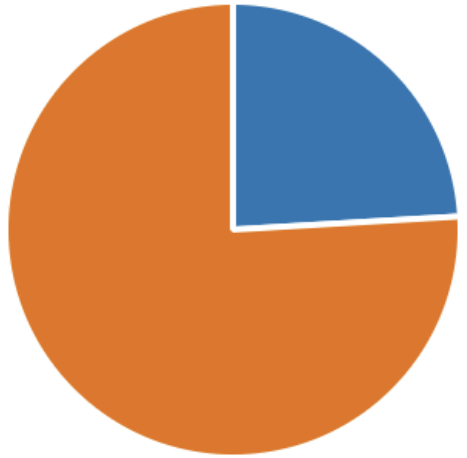


Expertise

Microscope	7
Telescope	0
Computer	36
Paper and pen	5
Particle Accelerator	6

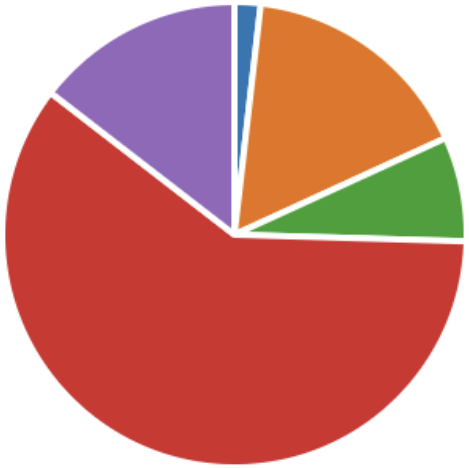
The biggest dilemma!

Tortellino	13
Lasagna	41



Is AI better than us?

Yes	1
Yes but not for creative stuff	9
No	4
No but it can help us	33
I put yes because I fear that the...	8



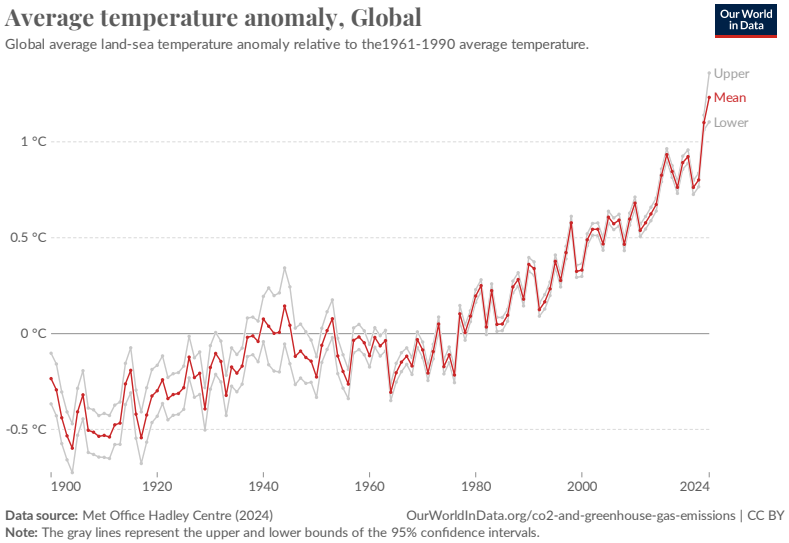
Has the world improved in the last 50 years?

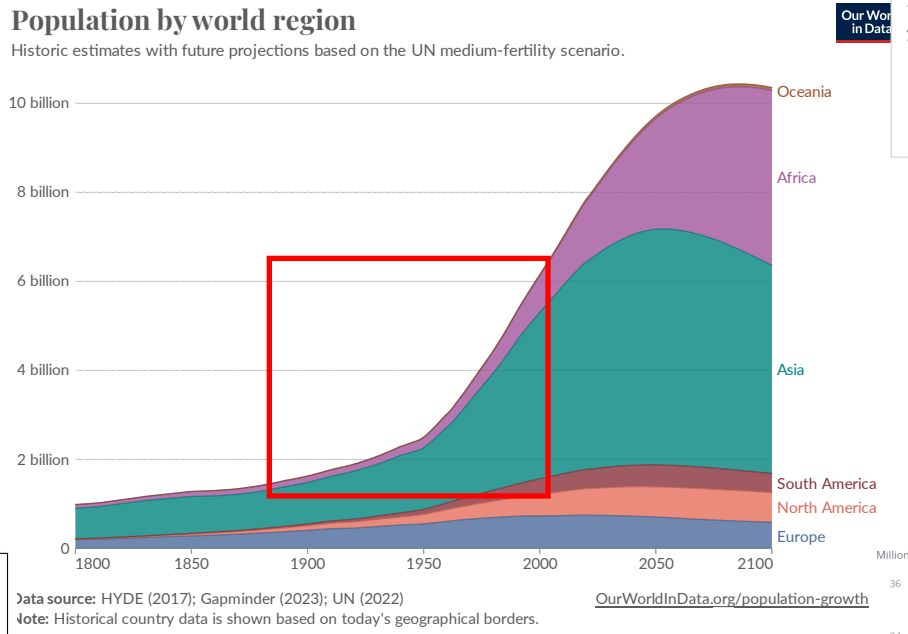
Improved	39
Got worse	8
Remained basically the same	8

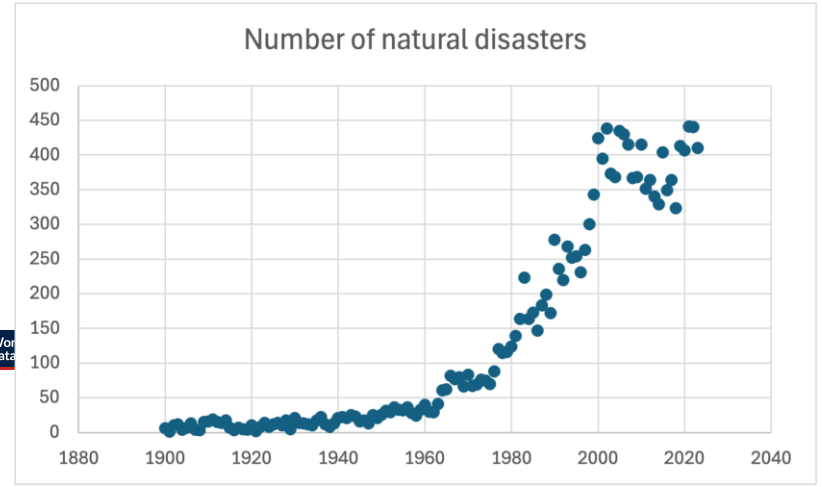
Do you believe in the possibility of a better planet

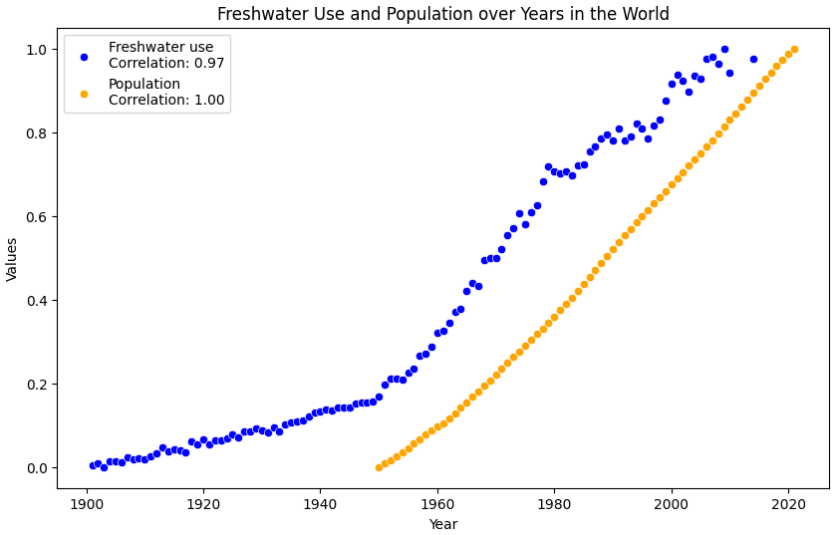
Yes	44
No	2
Without humans	6
On Mars	1
Governed by robots	2

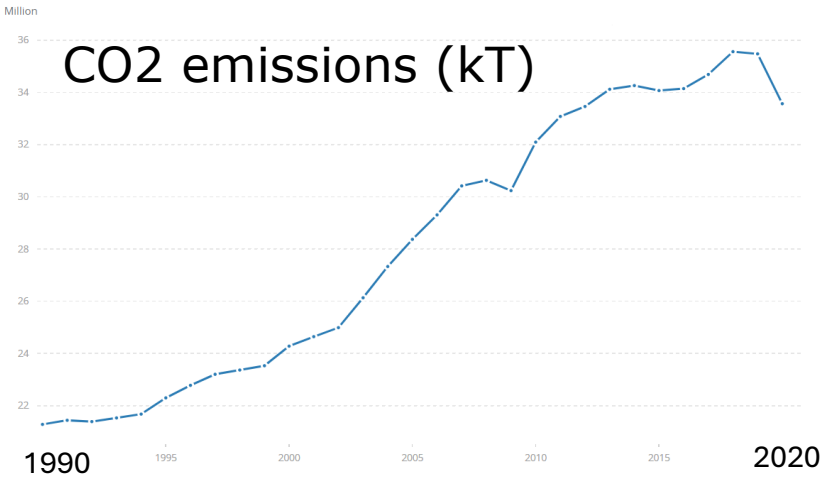
Alert signs (for the planet)



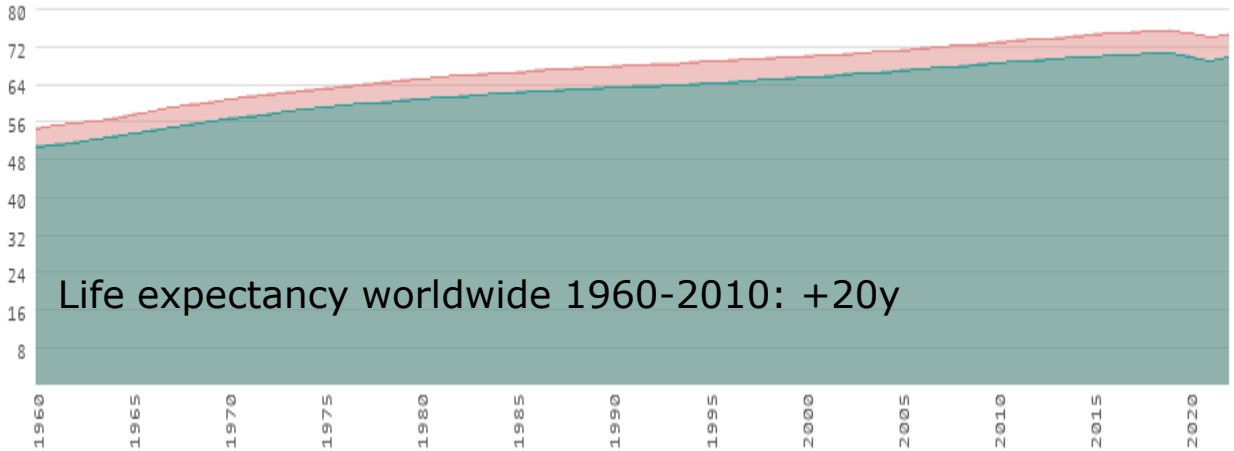


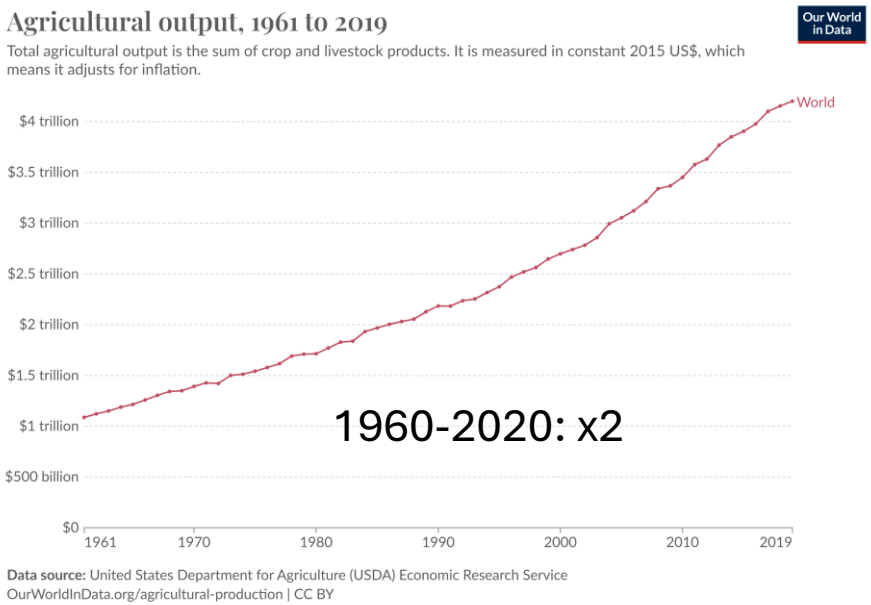


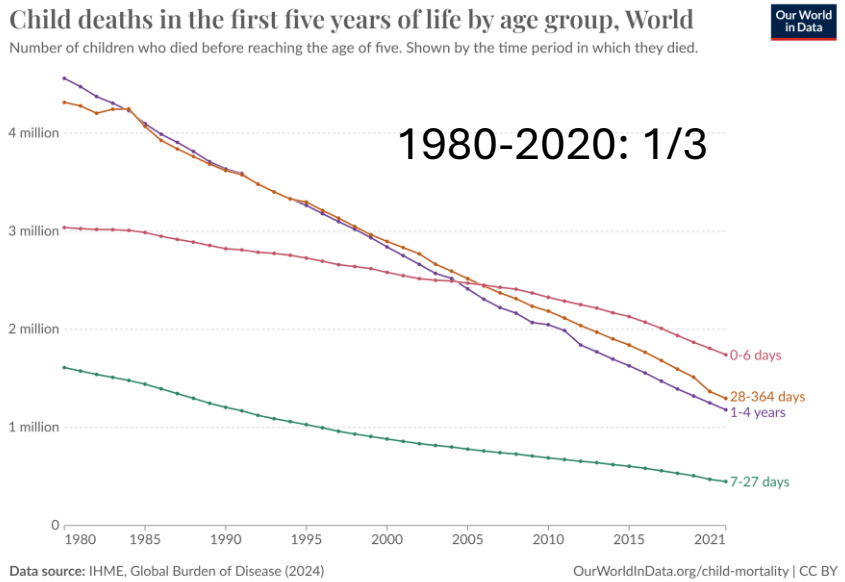


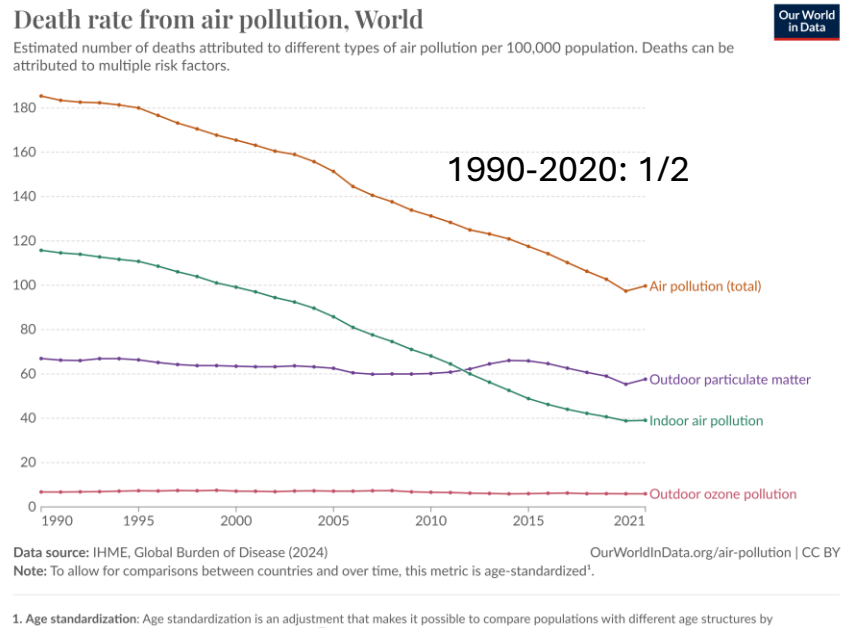


Positive signs (for humans)









Human population growth is an issue (finite space/resources)

What can we do as physicists?

- **Monitor** system state (by extracting good data)
- Identify most **impactful** interventions (eg on fresh water!)
- Find solutions to **reduce** "human impact on planet per capita"

How can we do that?

- Science & technology: energy sources, novel materials, food production & transport & irrigation optimization, climate & pathogen surveillance, but also simply increasing awareness!

Some summer lectures

Artificial intelligence

A brief history of artificial intelligence (Michael Woolridge)

Life 3.0 (Max Tegmark)

Fourth revolution (Luciano Floridi)

Social networks

Hype machine (Sinan Aral)

Social physics (Alex Pentland)

Statistics & data analysis

Drunkard's walk (Leonard Mlodinow)

The signal and the noise (Nate Silver)

Innumeracy (John Allen Paulos)

Complex systems & networks

Chaos (James Gleick)

Nexus (Mark Buchanan)

Synchrony (Steven Strogatz)

Neuroscience & psichology

Thinking fast and slow (Daniel Kahneman)

Moonwalking with Einstein: the art and science of remembering everything (Joshua Foer)

You will receive the certificates of attendance automatically on your email