

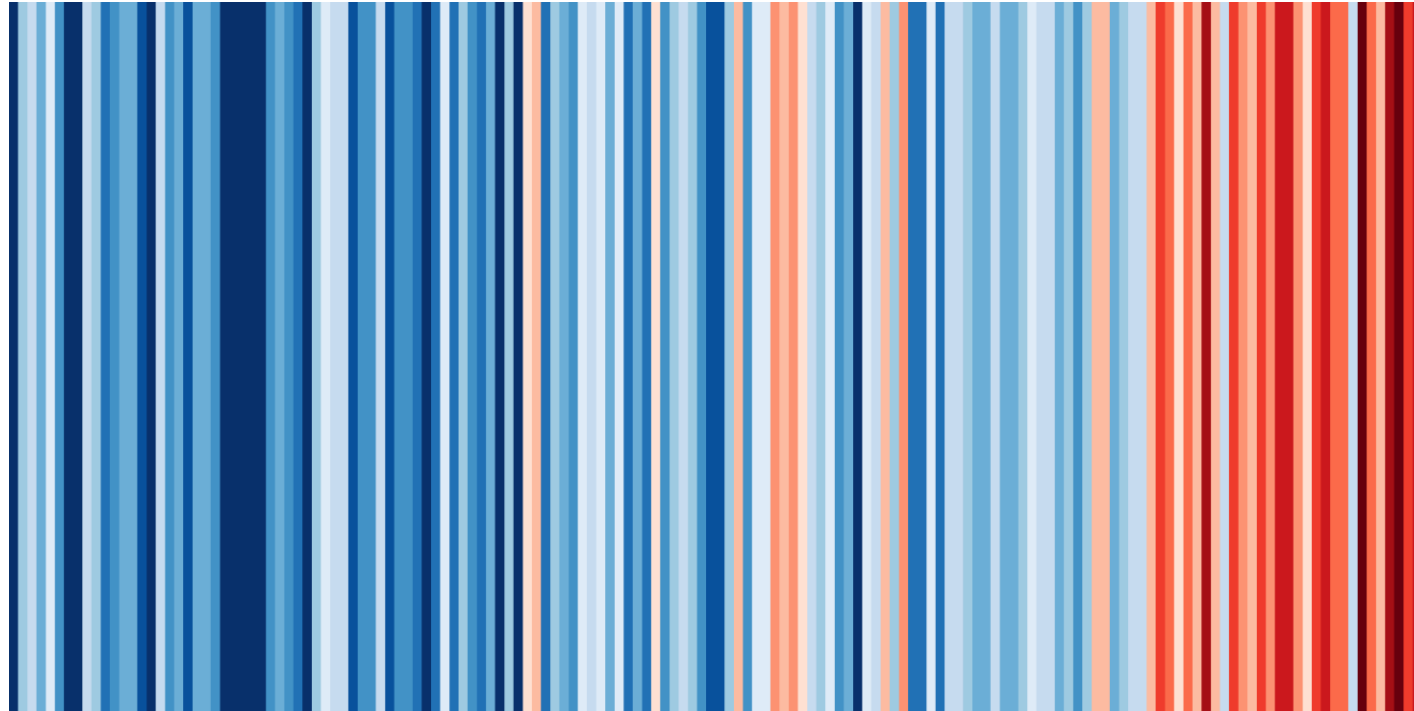
Doctoral course
Climate Economics for Engineers

**Impacts of climate change
in Switzerland**

Prof. Philippe Thalmann

30 September 2020

Switzerland is also warming up



Warming Stripes for
SWITZERLAND
from 1864-2018

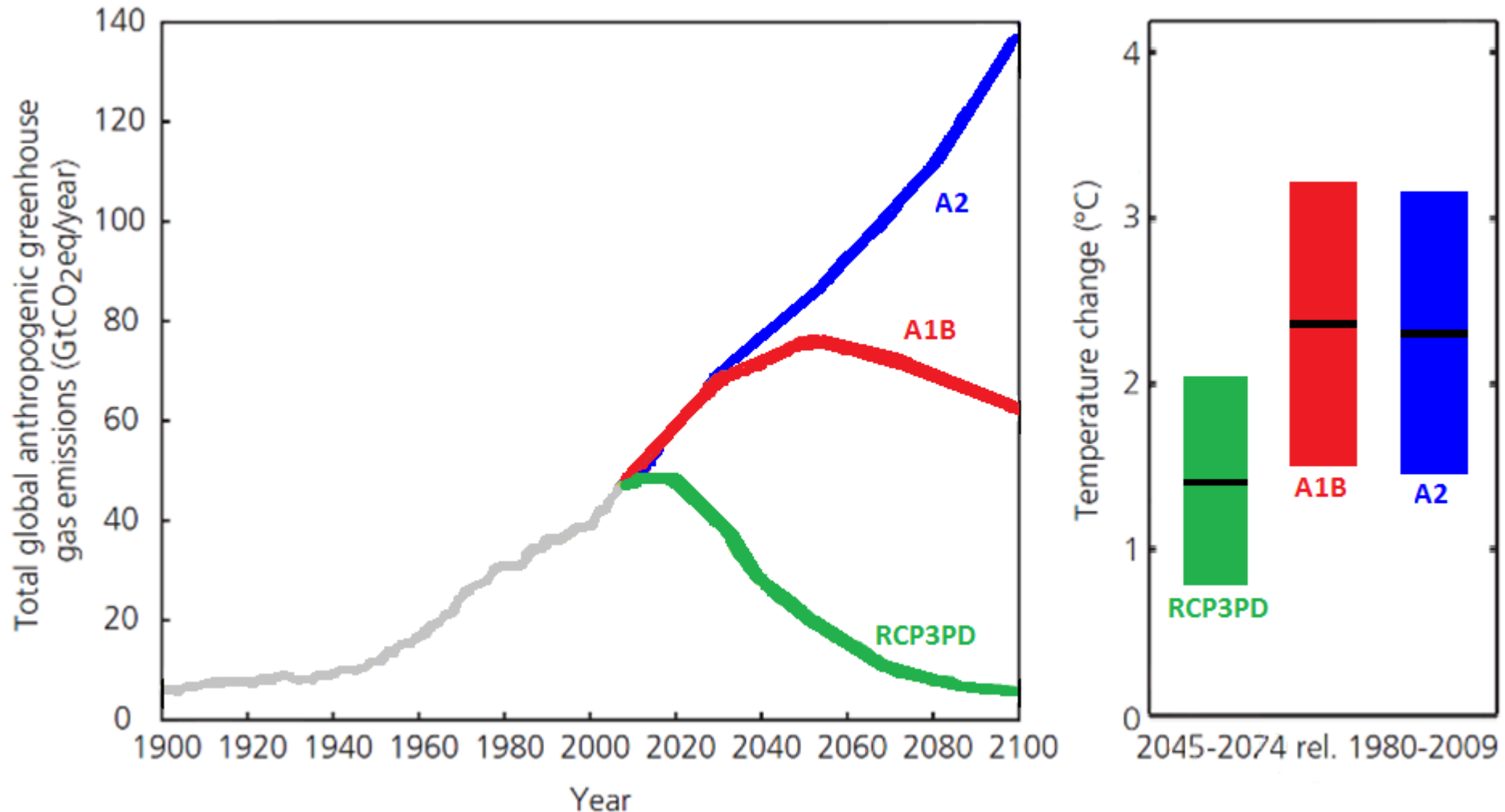
Ed. Hakwins,
<https://showyourstripes.info/>
25.06.2019

What will climate change (CC) cost Switzerland by 2060?

Task for Federal office for the environment (2014-2017):

- Collect and review evidence and forecasts of the impacts of CC in Switzerland
- Estimate the economic consequences of the most important impacts
- Develop the methodology for assessing CC impacts in a computable general equilibrium model (gemini-e3.epfl.ch)

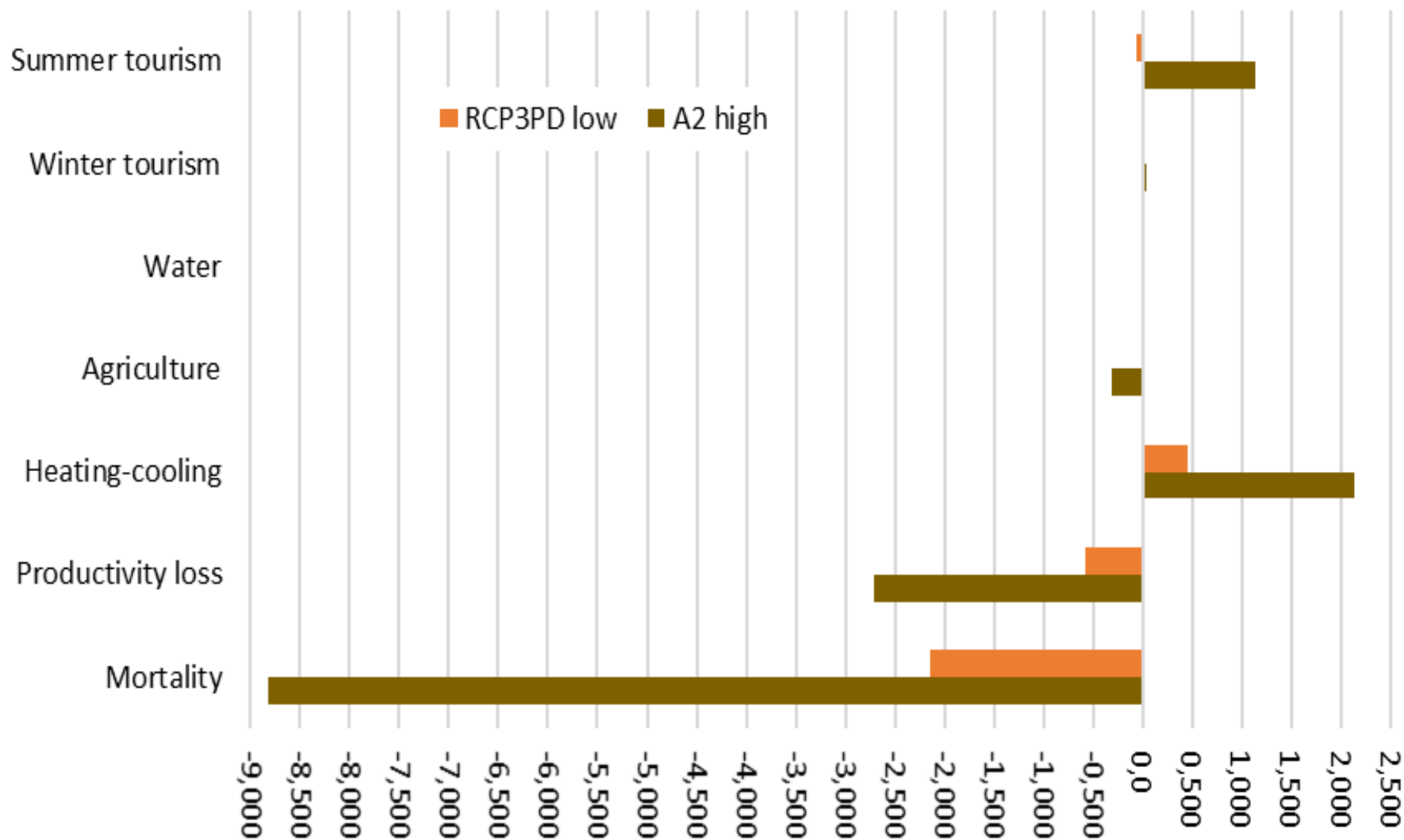
Climate scenarios



Pathways of past and future anthropogenic greenhouse gas emissions and projected annual mean warming for Switzerland for the 30-year average centered at 2060. Source: CH2011 (2011)

Decomposition of welfare impacts of CC in 2060 (million CHF2016)

Main results



Vöhringer, F., et al. (2019),
"Costs and benefits of
climate change in
Switzerland", *Climate
Change Economics* 10(2),
1-34

Main results

- Impacts on human health and labour productivity are the most serious CC impacts, with summer heat stress being the main cause
- Significant welfare gains are obtained from reduced heating needs; this is not offset by cooling needs
- Tourism stands to gain, being relatively less affected by reduced snow cover than other regions and thanks to the summer season