## Population dynamics under global climate change

## A seminar by Raya Muttarak

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Severe floods in Western Europe in 2021, exceptional heatwaves in India and Pakistan in March 2022 and droughts in northern Italy in 2022-23, to name a few, are examples of extreme events that are documented to be attributable to anthropogenic climate change. Indeed, it is evident that the impacts of human-induced climate change on our lives, livelihoods and wellbeing are already being felt. This raises a question whether, in which direction and to what extent climate change also influences demographic processes, through affecting fertility, mortality and migration, the three key demographic outcomes driving population change. Although it is highly plausible that climate change also affects population trends, to date existing global population projections have not taken into account the climate feedback on demographic processes. This talk aims to present how a demographic approach can be applied to assess the current impact of climatic factors on fertility, mortality and migration. We will also explore how demographic tools such as multidimensional population projections can be used to inform future population trajectories accounting for the climate feedback. I would also like to exploit this talk as a starting point for potential collaborations in the context of my ERC project POPCLIMA, which has started in January 2022 at the University of Bologna.



