

Bachelor Project

Interactions between climate change and precipitation patterns

BACKGROUND: The IPCC (2023) states with high confidence that, since the 1950s, there has been an increase in both the frequency and intensity of heavy precipitation events in most land areas, and human-caused climate change is likely the main driver. In the future, heavy precipitation is expected to intensify with rising air temperatures due to the increased water-holding capacity of warmer air.

PROBLEM: Heavy rain leads to pluvial flooding, and furthermore, changes in rainfall patterns also lead to changes in soil hydraulic properties, which can cause a feedback loop that further worsens the situation.

GOAL: Scientific literature research on global changes in precipitation patterns, as well as an analysis of the correlation between precipitation intensity and the respective drop size distribution

START: Flexible

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