TECHNISCHE HOCHSCHULE
OSTWESTFALEN-LIPPE
UNIVERSITY OF
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AND ARTS

Water Gauge Prediction

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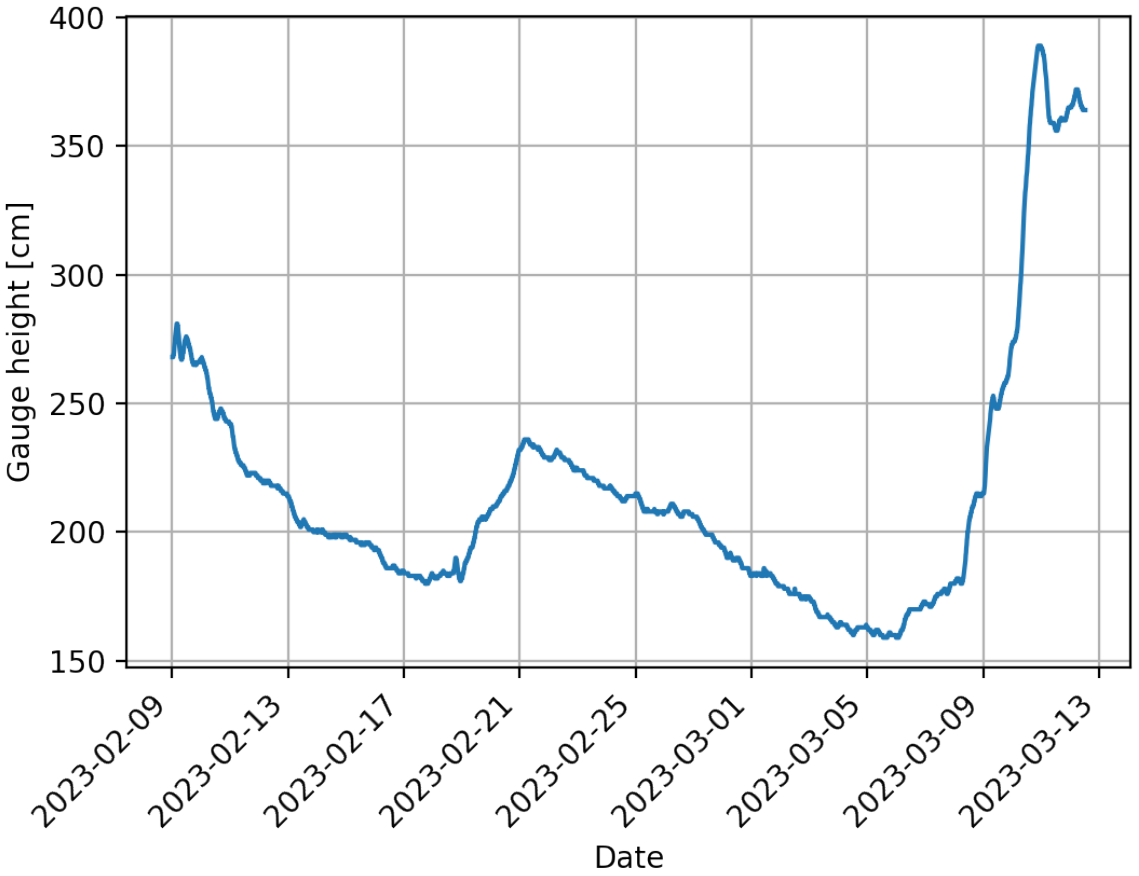
Gauge

Axel Hindemith



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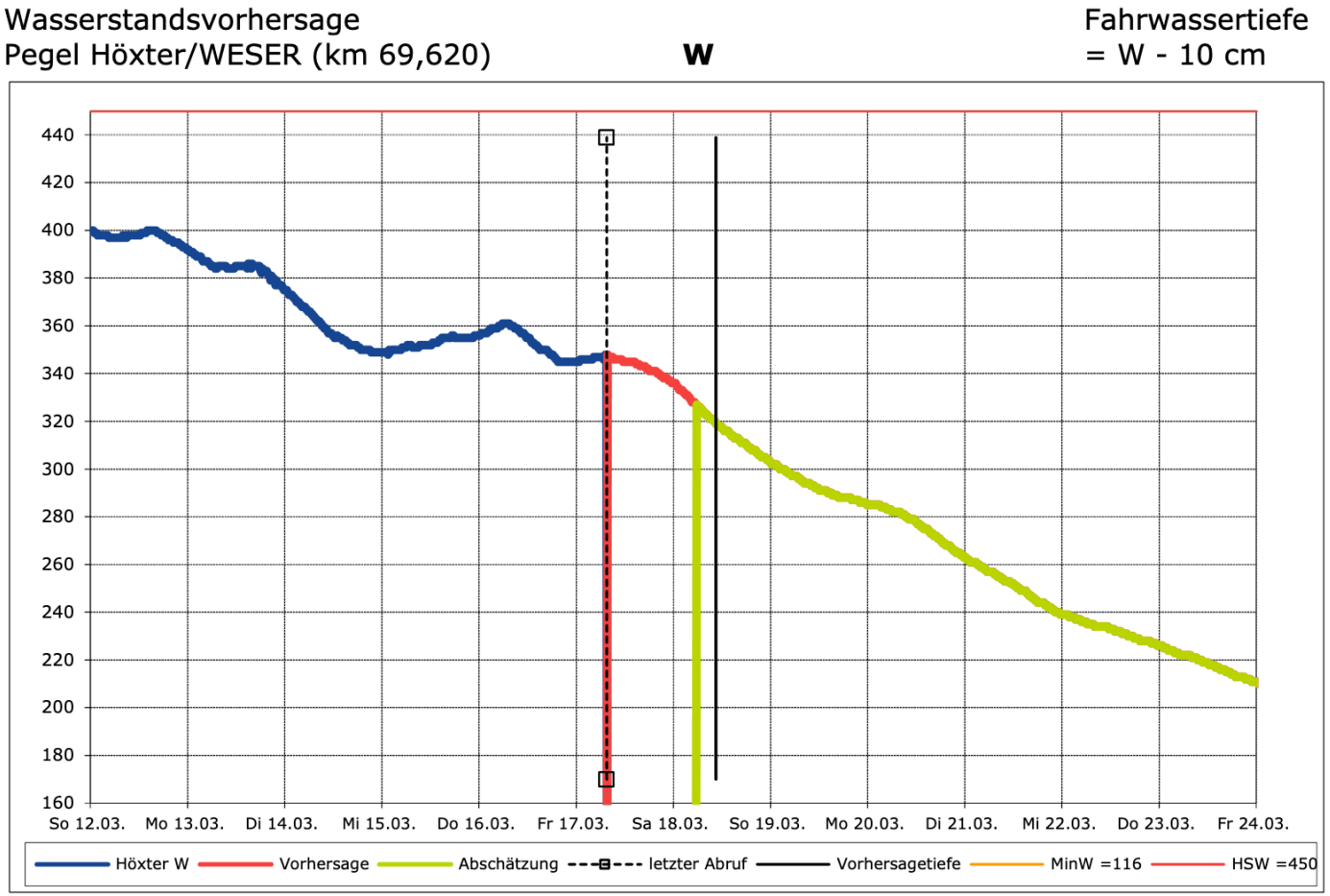
Prediction - established



https://pss.wsv.de/wsahmue/VorhersageOberweser.pdf

- calculated according to flow rates
- Precipitation is only received in the area of the Fulda and Werra rivers
  - No precipitation in the area between
  - Wave running speed only estimated
- No real time

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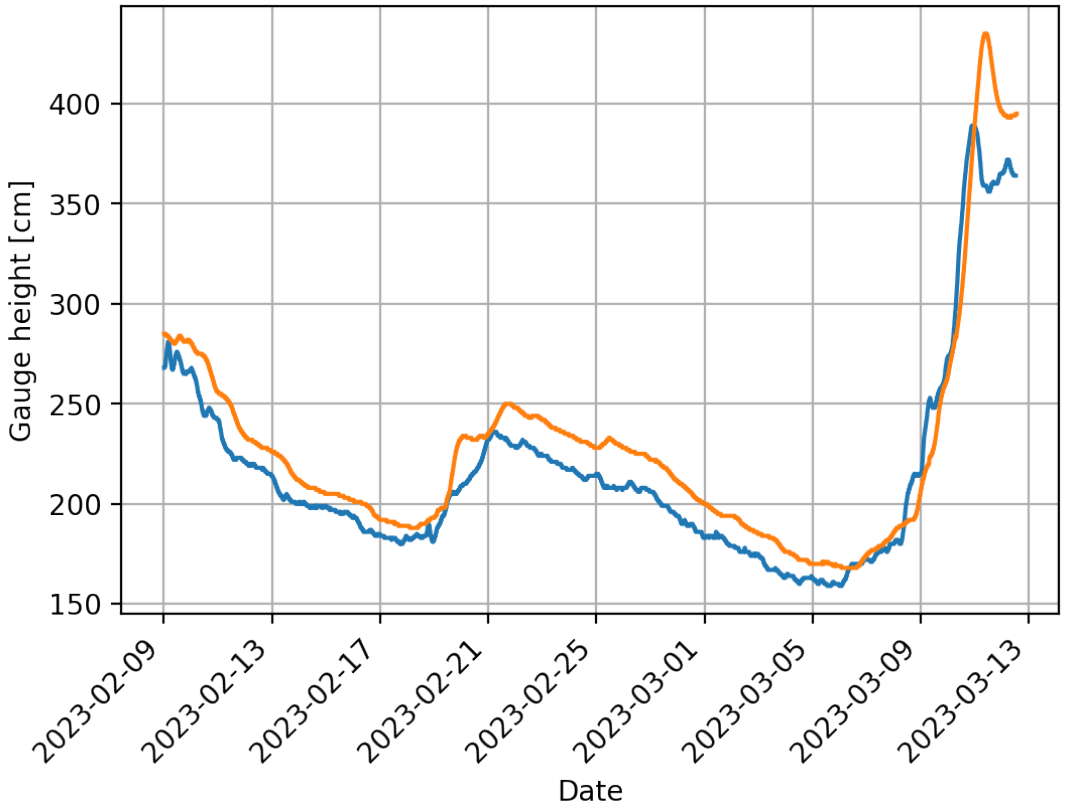
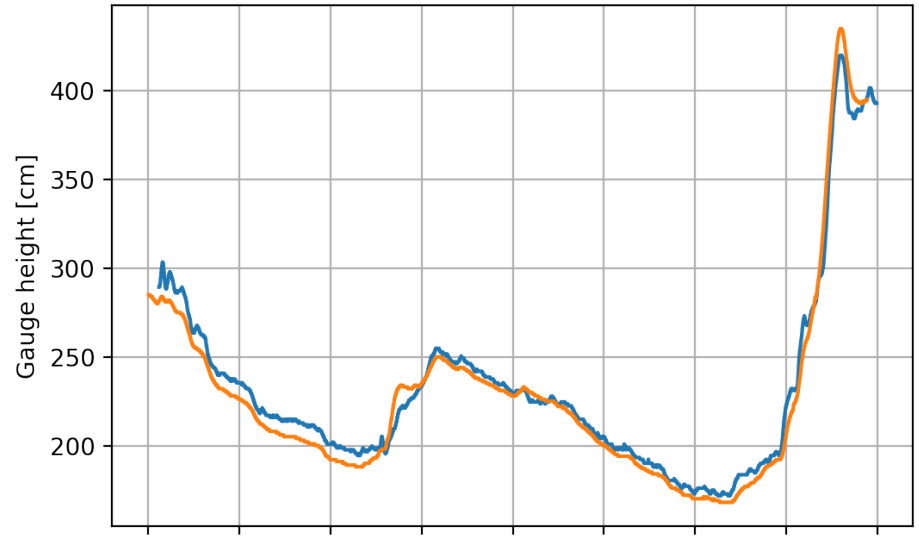
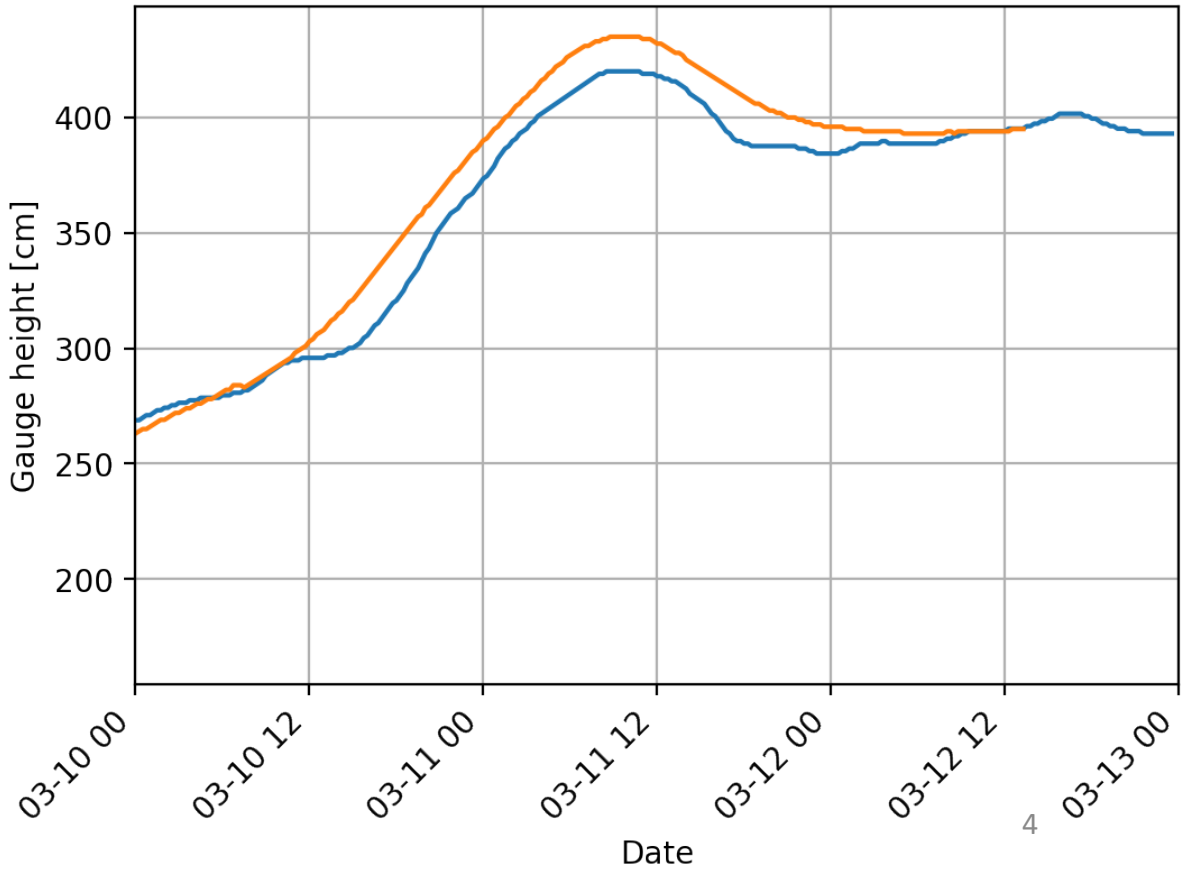
Prediction – similar to established







Gauge Hann-Münden (km=0)

Gauge Höxter (km=69)

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Task

- The hydrographs on the slides were calculated with data from the Weser river basin. These can be downloaded from https://www.pegelonline.wsv.de for free. However, you can also take data from any source.

1. Read in a hydrograph and graph it.
2. Read in a hydrograph of a second gauge of the same river. Try to determine the flow velocity from flood waves.
3. Develop a programme that superimposes two hydrographs to determine the flow velocity.
4. Determine how good the prediction of the water level is.