Diagnosing collective effects in the MAX IV storage rings

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The fourth-generation 3 GeV storage-ring at the MAX IV light source, as any ultra-low emittance machine, is sensitive to collective effects. A manifold combination of diagnostic setups is a valuable tool to investigate as well as monitor the impact and consequences of these collective effects at different time scales, from static bunch profiles and slowly oscillating instabilities to fast dynamics turn-by-turn. For example, the newly installed streak cameras at the diagnostic beamlines of the 1.5 GeV and 3 GeV rings are able to perform both slow and accurate measurements as well as fast turn-by-turn measurements of single and multiple bunches in various operation modes of the storage rings. This contribution will present their setup, a small discussion of the performed analysis and some examples of first measurements conducted in combination with other diagnostic tools for the study of collective effects.