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Attosecond RF Receivers Based on Carrier Suppression : Status Report

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The carrier suppression method offers a leap in terms of measured amplitude and phase resolution compared to other methods. The method allows overcoming the ADC noise barrier which can give resolution improvements of 30 dB compared to other methods. Our current work includes mostly finding the best technologies of various building blocks which should ultimately lead to a viable testing of a prototype on an accelerator. The goal of this contribution is to give a short status summary of what has been achieved so far. Furthermore an overview of the tested building blocks (phase shifters and attenuators) is given. In Parallel we have been also exploring possible ways of non-invasive phase calibration methods. We present the basic concepts and the so far obtained results of the later.

Primary author: Ms SPRINGER, Louise (DESY)

Co-authors: Dr LUDWIG, Frank (DESY); Dr SCHLARB, Holger (DESY); MAVRIC, Uros (DESY)

Presenter: MAVRIC, Uros (DESY)

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