

SP10: Systematic Studies of Short Bunch-length Bursting at ANKA

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The so called low-alpha operation mode allows the reduction of the bunch length in a storage ring down to a few picoseconds. The micro bunching instabilities resulting from the high degree of longitudinal compression lead to fluctuations in the emitted intensity in the THz regime, referred to as bursting. For extreme compressed bunches (small shielding factor) bursting also occurs below the standard bursting threshold. This contribution shows measurements in comparison with simulations of this short bunch-length bursting.

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