

INTERBAND AND QUANTUM CASCADE LASER FREQUENCY COMBS: FROM FUNDAMENTALS TOWARDS MONOLITHIC SPECTROMETERS

CEITEC BUT, C building, room C2.11

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Frequency combs are ideal candidates to realize miniaturized spectrometers without moving parts. I will give an overview of our current work on interband and quantum cascade lasers (ICLs and QCLs) ranging from an introduction to fundamental laser physics to the realization of monolithic devices. I will highlight similarities and differences between these two types of lasers, show how both FM and AM type frequency combs can be realized and discuss why the ICL comb platform is perfect for the realization of miniaturized spectrometers.



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