TECHNISCHE FAKULTÄT

Department Elektrotechnik-Elektronik-Informationstechnik

EEI-KOLLOQUIUM

Recent Trends in (sub)-mm-Wave Research and Systems

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Cauerstraße 9, Seminarraum 5.14

Diskussionsleitung: Prof. Dr.-Ing. G. Fischer

This talk is devoted to the development of innovative techniques suitable for the system operation in the mm-wave (30 GHz-300 GHz) and the lower sub-mm wave (>300 GHz). Recent trends in device and IC development suggest the active operation of electronic circuits is viable at least up to 670 GHz using conventional III-V semiconductors and that the RF-power gap prevailing above 100 GHz can potentially be closed by new electronic technologies such as the III-Nitrides. These findings, along with the huge potential offered by the ever progressing silicon, offer great opportunities for system design and application in the next decade. The talk discusses examples for MMICs, module integration and operation, and system application examples up to 300 GHz for radar, imaging, and communication.