

EEI-KOLLOQUIUM

On the Properties of Metallic Microwave-Scale Mach-Zehnder Interferometers for Dielectric Resonator Tuning

Dr. Héctor J. De Los Santos

Deutsche Forschungsgemeinschaft Mercator Gastprofessur
Institut für Hochfrequenztechnik und Elektronik (IHE)
Karlsruher Institut für Technologie (KIT)

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Diskussionsleitung: Prof. Dr.-Ing. L.-P. Schmidt

Modulation of the properties of metallic microwave-scale Mach-Zehnder interferometers (MZI) coupled to dielectric resonators (DR) may be used to tune the resonance frequency of the latter. In this talk we present results on a theoretical study of the intrinsic tuning properties of a MZI-DR transmission line system, of the type employed in dielectric resonator stabilized oscillators, in particular, dealing with the tuning range and quality factor. An experimental verification of the concept is included.